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## **Studia Alphabetica: On the Origin and Early History of the Northwest Semitic, South Semitic and Greek Alphabets**

Sass, Benjamin

**Abstract:** This book touches on aspects, chiefly chronological ones, that are relevant to the emergence of the Northwest Semitic, South Semitic and Greek alphabets. In chapter two a conceptual and chronological link is suggested between the Middle Kingdom system of transliterating Semitic names and the birth of the Northwest Semitic alphabet. Chapter three traces the early development of the South Semitic scripts in finds from Arabia, Mesopotamia and the Levant, in search of the period most suitable for the emergence of the alphabet in the kingdom of Sheba. The birth-date of the Greek alphabet, a subject on which scholarly agreement is still lacking, is discussed in chapter four. The author combines the relevant Semitic and Greek epigraphical evidence in order to elicit the time of the adoption of the Greek alphabet from the Phoenician one.

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ZORA URL: <https://doi.org/10.5167/uzh-152367>

Monograph

Published Version

Originally published at:

Sass, Benjamin (1991). *Studia Alphabetica: On the Origin and Early History of the Northwest Semitic, South Semitic and Greek Alphabets*. Freiburg, Switzerland / Göttingen, Germany: Universitätsverlag / Vandenhoeck Ruprecht.

## **Sass**   Studia Alphabetica

# ORBIS BIBLICUS ET ORIENTALIS

Im Auftrag des Biblischen Instituts  
der Universität Freiburg Schweiz,  
des Seminars für Biblische Zeitgeschichte  
der Universität Münster i. W.  
und der Schweizerischen Gesellschaft  
für orientalische Altertumswissenschaft  
herausgegeben von  
Othmar Keel  
unter Mitarbeit von Erich Zenger und Albert de Pury

## *About the Author*

Born in 1948 in Jerusalem, Benjamin Sass graduated from the Institute of Archaeology of the Hebrew University, Jerusalem. He received his Ph. D. from Tel Aviv University in 1985 (thesis entitled «The Genesis of the Alphabet and its Development in the Second Millennium B.C.»).

In 1972 he joined the staff of the Israel Antiquities Authority (formerly Department) holding the posts of deputy district archaeologist, Sinai (1972–80), editor (1980–83), archivist (1983–89) and head of the computerization branch (1989). Since 1988 he is teaching archaeology at the University of Haifa.

Sass was area supervisor at Avigad's excavations in the Jewish Quarter, Jerusalem (1972). In the seventies he took part in most excavations and surveys in Sinai and the Arava, directing several of them himself. In 1977, during a survey of the Serabit el-Khadem plateau, he discovered two Proto-Sinaitic inscriptions. His publications include a revised version of his Ph. D. thesis (same title, Harrassowitz: Wiesbaden 1988), *Script and Inscriptions in the Biblical Period* (textbook, Open University of Israel: Tel Aviv 1990, in Hebrew), and numerous papers.

Benjamin Sass

# Studia Alphabetica

On the Origin and Early History  
of the Northwest Semitic,  
South Semitic and Greek Alphabets

Universitätsverlag Freiburg Schweiz  
Vandenhoeck & Ruprecht Göttingen



CIP-Titelaufnahme der Deutschen Bibliothek

**Sass, Benjamin**

Studia alphabetica: on the origin and early history of the Northwest Semitic, South Semitic and Greek alphabets/Benjamin Sass. – Freiburg, Schweiz: Univ.-Verl.; Göttingen: Vandenhoeck und Ruprecht, 1991

(Orbis biblicus et orientalis; 102)

ISBN 3-525-53734-4 (Vandenhoeck und Ruprecht)

ISBN 3-7278-0729-6 (Univ.-Verl.)

NE: GT

Published with the financial support  
of the Dorot Foundation, New York

© 1991 by Universitätsverlag Freiburg Schweiz  
Vandenhoeck & Ruprecht Göttingen

Paulusdruckerei Freiburg Schweiz

ISBN 3-7278-0729-6 (Universitätsverlag)

ISBN 3-525- 53734-4 (Vandenhoeck & Ruprecht)

Digitalisat erstellt durch Florina Tischhauser,  
Religionswissenschaftliches Seminar, Universität Zürich

## PREFACE

I SHOULD like to express my thanks to the institutions that provided information and photographs for this volume: the Israel Antiquities Authority (formerly Department), Israel Museum, Jerusalem, British Museum, Department of Western Asiatic Antiquities, Metropolitan Museum, New York, Walters Art Gallery, Baltimore, Yale Babylonian Collection, Smithsonian Institution, Washington, Kunsthistorisches Museum, Vienna, Staatliche Münzsammlung, Munich, Staatliche Museen zu Berlin (GDR), Bibliothèque Nationale and the Musée du Louvre, Paris, and the Musées Royaux, Brussels.

The Dorot Foundation, New York, contributed toward the cost of the preparation of the manuscript for publication. David Ilan helped improve the style of substantial parts of the text. The sections dealing with Mesopotamian glyptic profited profoundly from the help and good advice of Tallay Ornan. Two individuals deserve special thanks: Israel Finkelstein gave his indispensable advice and encouragement. Professor Othmar Keel kindly agreed to publish this study in OBO, of which he is the editor.

The present volume touches on aspects, chiefly chronological ones, that are relevant to the emergence of the Northwest Semitic alphabet and two of its three early descendants—the South Semitic and Greek alphabets. I am aware of how much is still obscure or lacking in our knowledge in this field, especially concerning the processes that led to the birth of the first Arabic scripts. If I have succeeded at least in presenting the relevant material and its problems in full, then the foundations for further study of the evolution of these alphabets have been laid.



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## CHAPTER 1: INTRODUCTION

DATING the emergence of the Northwest Semitic alphabet and two of its three early descendants – the South Semitic and Greek alphabets – is an issue scholars have been grappling with since the early days of research (only the date of the Ugaritic alphabet is securely established). In *Genesis of the Alphabet* (Sass 1988) I proposed dating the birth of the Northwest Semitic alphabet to the eighteenth, rather than fifteenth, century B.C.; the second chapter of the present volume addresses a phenomenon that seems to me to corroborate this dating—the nearly-alphabetic transcription of foreign names in the Middle Kingdom. Archaeological and palaeographical considerations are employed in chapters 3 and 4 to try elucidate the period when alphabetic writing was introduced to Arabia and Greece.

### 1.1 The Middle Kingdom transcription of Semitic names

There may well have been a link between the Middle Kingdom Egyptian system of writing foreign names, that was almost alphabetic, and the invention of the Northwest Semitic alphabet (during the New Kingdom, "group writing" replaced the "alphabetic" system). In the Execration Texts and elsewhere this system is mixed with normal Middle Kingdom Egyptian writing. During the reigns of Sesostri III and Ammenemes III the names of Semites who joined the Egyptian mining expeditions were written in this way in Sinai. According to the Sinai inscriptions some of the Semites came from Syria-Palestine, though the origin of others is not specified.

Were the inventors of the Northwest Semitic alphabet, whose letter forms were borrowed from Egyptian hieroglyphs, aware of the Egyptian system of writing foreign names? We shall probably never know, but it is clear that influence in this direction could only have been exerted during the Middle Kingdom, when foreign names were being written in an almost completely alphabetic system. Assuming that our inventor (I use the singular for convenience) was literate

in Egyptian, he was not unfamiliar with the concept of breaking up words into their component consonants—the Middle Kingdom system of writing foreign names was fully or almost fully capable of transliterating the consonants of his own language. His greatest achievement lay in having come to the conclusion, utterly foreign to the Egyptian scribes, that an entirely alphabetic writing system could stand on its own. What was left to be done was mainly technical, and here, too, he resorted to what Egyptian had to offer—he chose the letters from the repertoire of Egyptian hieroglyphs, giving them a new, easily recognizable meaning in his Northwest Semitic language, on the acrophonic principle. Now this principle was nothing new in Egyptian—it was employed in cryptographic writing during the Middle Kingdom.

## 1.2 The South Semitic alphabets

In spite of several pieces of evidence, most of which are still circumstantial, for the existence of a developed civilization in Arabia in the second millennium, it is difficult to suppose that there was a literate society in Southern Arabia before the end of the millennium. The great impetus which the domestication of the one-humped camel as pack animal gave to the caravan trade at about the end of the second millennium, and the wealth which resulted from this, created both the need for and the conditions favourable to the adoption of a script in the (newly founded?) kingdom of Sheba. Information about Southern Arabia at this time and about the beginning of writing there is very scanty, and any new discovery might change the conclusions reached in the following pages.

The concept of the consonantal alphabet was learnt in Southern Arabia from the users of the Northwest Semitic alphabet(s), as demonstrated by the forms of some of the letters. Several of them closely resemble Phoenician letters of the eleventh–tenth centuries, and it is to this period that the beginning of the South Arabian alphabet is most likely to be assigned. (I cannot accept Cross' theory that the fourteenth–thirteenth century Proto-Canaanite script was the source of the South Arabian script.) The earliest historical evidence we possess about Southern Arabia—the state visit of the Queen



of Sheba to Jerusalem--also dates from the tenth century. The earliest known South Semitic texts whose date can be fixed with certainty belong to the eighth century, though some may be earlier. One can only hope that the renewed archaeological activity in North Yemen will produce securely-dated inscriptions from the initial phase of the South Arabian script.

The South Arabians, like the people of Ugarit, based their alphabet on an existing model and almost certainly introduced it in a carefully planned manner, so that there is no need to seek a formative phase. It is interesting to note that the letter order of the South Arabian scripts is completely different from that of Northwest Semitic and Greek ones.

### 1.3 The Greek alphabet

Semitic epigraphical considerations relevant to the adoption of the alphabet by the Greeks, indicate only that this event occurred some time between the eleventh century and the ninth; the eleventh century (Naveh's choice, adopted by several Semitists, and questioned in chapter 4) is not, from a Semitist's viewpoint, preferable to the tenth or ninth; the eighth century is impossible. It remains the task of the Greek evidence to pinpoint, within this wide range, the date of the alphabet's borrowing, and it is the ninth century that this evidence still favours.

## CHAPTER 2: THE MIDDLE KINGDOM TRANSCRIPTION OF SEMITIC NAMES AND THE GENESIS OF THE ALPHABET<sup>1</sup>

### 2.1 Introduction

WHEN they met in Cairo more than forty years ago Albright and Leibovitch agreed that the Proto-Sinaitic inscriptions date to the early Eighteenth Dynasty and not, as was then commonly maintained, to the twelfth. Their view is still current, but a re-examination of the arguments makes plain that they are equivocal at best. The argument considered strongest—Leibovitch's attribution of the Proto-Sinaitic sphinx (Sinai 345) to Hatshepsut—is downright wrong. The sphinx and the Proto-Sinaitic block statuette (Sinai 346) have their best parallels in the late Middle Kingdom. These statuettes and other evidence, all unfortunately circumstantial, give some preference to a late-Twelfth Dynasty date, and if so, it is possible that the alphabet was born in Sinai (Sass 1988, 135–144). This chapter deals with one such piece of evidence—the nearly alphabetic transcription of foreign names in Egyptian in the Middle Kingdom.

### 2.2 "Group writing" in the New Kingdom

The Egyptian topographical lists of the New Kingdom (Beinlich 1980) made special use of hieroglyphs in transliterating foreign names. The use of this method for the names of places, gods and persons from Western Asia is of particular interest for our purpose. Already in the nineteenth century scholars discovered what was later labelled "group writing" or syllabic writing. Müller in 1893 (58–91) recognized the influence of cuneiform script on this Egyptian system. Albright (compare 1934, 13, note 14 with 1954, 222 ff., note 7) ultimately arrived at the same conclusion. But it was Burchardt

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1. An abridged Hebrew version of this chapter was published in *Eretz Israel* 20 (Yadin Volume), Jerusalem 1989, pp. 44–50.

(1909–1910) who clearly demonstrated, on the basis of the almost standard spelling, that this was a definite system, though he did not support the theory of its cuneiform inspiration. Albright (1934), Albright and Lambdin (1957, 113–127) and others (e.g. Edel 1949, 44–47; Helck 1971, 505–575) refined Burchardt's equations and added more recently discovered material.

Not all scholars agreed that this Egyptian writing system was syllabic. Edgerton (1940), for instance, thought that in most cases Egyptian writing represented only the consonantal framework of the names. Edel (1966) and Helck (1971, 505–575) represent the two extreme approaches to this subject in the postwar German school. The former does not believe in the systematic representation of vowels in "group writing", while the latter regards it as a near perfect syllabic writing (see below).

The New Kingdom system of writing foreign names occasionally employed short nouns and pronouns (Albright 1934, 22 ff.) usually consisting of syllables of the CV type, but sometimes of the CVC type. If no suitable syllabic group was available, an "alphabetic" uniliteral sign would be used with a *mater lectionis*. There are also a few groups which start with a vowel (*mater lectionis*). The groups of Egyptian hieroglyphs often correspond to the cuneiform signs used in writing the same name (see above and below). There is thus no doubt that the syllabic writing of the New Kingdom is alien to the alphabetic concept. At this period, even the groups composed of an alphabetic sign with a *mater lectionis* were regarded as syllabic (see below). We should thus examine the early development of the writing of foreign names in Egyptian, in the early second millennium.

## 2.3 The writing of foreign names in the Middle Kingdom

### 2.3.1 Sources

The evidence of how foreign names were written in Egyptian prior to the New Kingdom was so scanty in Burchardt's day that it was impossible to come to any, other than preliminary conclusions. The publication of names of Western Asiatic

places and rulers from the Middle Kingdom Execration Texts from Thebes (Sethe 1926) and Saqqara (Posener 1940) completely changed this situation. Later, Brooklyn Papyrus 35.1446 was published; this dates from the Thirteenth Dynasty and contains a list of Semitic slave names (Albright 1954; Hayes 1955). Preliminary data on the Mirgissa Execration Texts, which are probably contemporary with the Theban ones, was published by Posener in 1966. Other Northwest Semitic names written in Egyptian are known from Sinai (mostly from the reign of Amenemmes III, 1859–1814 or 1817–1772), from Byblos (from the time of Amenemmes III and IV and the early Thirteenth Dynasty), from the story of Sinuhe and elsewhere.

My main sources for this study were Sethe and Posener's publications of the Saqqara and Thebes Execration Texts, each containing a hieroglyphic transcription of the main list, a concise discussion of the variants and select photographs. I am aware of the limits this method of publication sets to a secondary study like the present one, and can only hope that a republication of the whole material will be undertaken soon, complete with facsimiles, photographs and a palaeographical analysis.

### 2.3.2 Internal chronology

The archaeological context of the Execration Texts is unknown,<sup>2</sup> and no dates are mentioned in them. Among the

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2. Sethe's group was purchased in 1925 in Luxor by Heinrich Schäffer from an antiquities dealer, who said they were found in a tomb in western Thebes (Sethe 1926, 5). The figurines of Posener's group were purchased in 1938 in Paris by Jean Capart of the *Musées Royaux* in Brussels. Posener, who saw similar figurines in the Cairo Museum, assumed that all came from one source—a guess confirmed by his investigations in Cairo in 1938. The figurines were found in excavations carried out by Firth in 1922 to the north of the wall of Teti's pyramid compound at Saqqara. They were discovered in an area that yielded, among other material, finds dating to the Middle Kingdom, but their exact context is unknown. Together with the large figurines, which are inscribed with

Egyptian names on the small execration statuettes from Saqqara (see note 2) are some compounded with  $h^c-ksw-[r^c]$ , the name of Sesostris III (1878–1859 or 1836–1817). They may be later than his reign, since the people mentioned on them were probably already dead (Posener 1940, 29–35; 1975, esp. 68).

Palaeography (Posener 1940, 29, 31) and orthography were thought to indicate that the Thebes and Mirgissa texts are earlier than those from Saqqara. It has also been suggested that the socio-political situation in Western Asia reflected in the number of rulers mentioned would favour an MBIIA date for the former and an MBIIB date for the latter (Alt 1941, 37; Albright 1941, note 9 and p. 19); Albright (1928, 250, 253) assumed this long before the publication of Posener's texts. Helck (1971, 44) thought that the rulers' names do not necessarily reflect a specific point in time, and that names of earlier rulers may have been included too. And indeed was geographical-historical precision important for execration? Rainey too (1972, 386), put forward compelling arguments against attaching undue importance to the differences between the two groups. In any event, the exact time lapse between them is still uncertain. Posener's suggestion (1940, 34), that two Nubian rulers mentioned in Sethe's group are the fathers of two who appear in the documents that he himself published, remains unproven.

Rainey (1972, 382) noted that Sethe's grammatical arguments (1926, 15–18) for an Eleventh Dynasty date for the Theban group were never contested. The end of the Eleventh Dynasty could thus at least be the date of the list which served as the source of the Execration Texts. On the other hand, Stefan Wimmer, a doctoral Egyptology student at the Hebrew University, at a seminar in April 1988, pointed out

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foreign names, there were small, schematically modelled figurines bearing Egyptian names (Posener 1940, 15–17). The figurines are not mentioned in the excavation report (Firth and Gunn 1926). Firth wrote on p. 5: "...only a certain amount of time and work are available and this must be devoted to the more important and better preserved material even if this involves the exclusion of much which will never emerge from the obscurity of the field notebooks".

that, being of a magical nature, our texts are apt to have been written in a deliberately archaizing manner. It is the few later palaeographical and orthographical elements that betray the actual date, which according to Wimmer is the late Twelfth-early Thirteenth Dynasty for all three groups of execration texts, with only short intervals.

The date of the Brooklyn papyrus is certain. The mention of Sebekhotep III of the Thirteenth Dynasty places it in the second half of the eighteenth century or in the first half of the seventeenth. But this does not mean that "alphabetical" writing in Egypt emerged only as late as that—even if all the Execration Texts will ultimately be dated to the Thirteenth Dynasty, the Twelfth Dynasty use of this system is well attested in Sinai, at Beni Hasan etc.

#### 2.4 The systems of writing foreign names in the Middle and New Kingdoms—development and links

Albright (1928, 229 and especially 255, note 1; 1934, 5 etc.) was the first to notice that the names of places and persons in the Execration Texts were written almost "alphabetically", i.e. uniliteral signs predominated. Bi- and triliteral signs and syllabic groups were scarce. Nevertheless, syllabic writing was already in use during the Middle Kingdom even for Egyptian names, though to a very limited extent (Albright 1934, 10). One development present from the beginning was the use of *matres lectionis* for *a*, *i* and *u*. And while uniliteral signs predominate, there is an increase in the number of syllabic groups in the Brooklyn papyrus. (In the Execration Texts too there is a small increase in the number of syllabic groups in Posener's group, another possible indication of the later date of this group, or of different contemporary scribal traditions.)

The appearance of developed syllabic writing in the Eighteenth Dynasty meant to Albright (1934, 12; 1954, 224-225) that syllabic groups were used fairly extensively in the Second Intermediate Period. Albright suggested attributing the development of "group writing" to the Hyksos, with their close connections to Western Asia, and considered the syllabic writing of the Brooklyn papyrus very advanced. In fact, the papyrus was still written in "alphabetical" script (see the table below), as were the names of some of the pharaohs of

the Second Intermediate Period. If the use of syllabic groups for writing foreign names increased in the Second Intermediate Period, this had probably begun as an internal Egyptian development reflecting the habits of the scribes (in any case, there is no evidence from this period of genuine syllabic writing). However, a writing system based on cuneiform must have been consciously created by people who had envisaged the system in its entirety, whether at the end of the Second Intermediate Period or in the early Eighteenth Dynasty. Does it not seem likely that Egyptian scribes, who knew Akkadian or were at least familiar with the principles of cuneiform writing, created a system of a few dozen signs which enabled them to copy Akkadian writing fairly accurately?

Edel (1966, 61–90, especially 87–90) regarded many of the Egyptian groups of signs as rendering varying syllables, i.e. consonants with one of the three vowels (or the consonant on its own). However, would it have been necessary to replace the "alphabetic" writing of foreign names customary in the Middle Kingdom with another system if the latter did not represent vowels (Kitchen, 1969, 192–202, esp. 201–202; Rainey 1982, 335; Schenkel 1986)? No contemporary list of the signs used in syllabic writing is known (the earliest Egyptian sign-lists of any kind belong to the Roman Period), but the high degree of standardization in writing foreign names during the New Kingdom indicates that the scribes must have used a definite system. The original version of the system underwent modifications in the course of the Eighteenth and Nineteenth Dynasties and finally degenerated (Albright 1934, 12–13).

Traces of the consonantal script survived into the New Kingdom, especially in familiar names, like *b<sup>c</sup>r* (Baal), whose spelling had become "canonized" (Albright 1934, 12).

It is interesting to note that the Egyptian "alphabetic" script was abandoned towards the New Kingdom in favour of syllabic writing. It was obviously the cuneiform script, the likely model for syllabic writing, that still occupied the most important position, certainly in diplomacy, even though alphabetic writing was already known in the West Semitic world.









## 2.5 Semitic sounds and their transliteration during the Twelfth–Thirteenth Dynasties

### 2.5.1 Table



The following table presents the Egyptian signs used to transliterate the Semitic consonants and, to a lesser extent, the vowels, in the mainly alphabetic writing of foreign names during the Twelfth and Thirteenth Dynasties, disregarding *b–m* and *l–n* interchanges. *Matres lectionis*, discussed in section 2.5.4, do not figure in the table.




| Semitic consonant | Unilateral sign  | Bi- and trilateral sign   | Syllabic group   |
|-------------------|--|---|--|
| '                 | <p> initial, final and medial (<i>passim</i>)</p> <p> Sethe (e29, f19), Posener (E34), Brooklyn (17, 32)</p> | <p> 'b (<i>passim</i>)</p> <p> 'y, Sethe (e4)</p> <p> 'm, Posener (E1), Brooklyn (10)</p> <p> 'n, Sethe (e13-19, f10, f14), Posener (E3). This sign serves also as <i>yn</i></p> <p> 'r/'l, Sethe (e21), Posener (E38? E43)</p> | <p> 'a/a', Sethe (f21), Posener (<i>passim</i>), Sinai (163), Brooklyn (33?)</p> <p> 'u, Brooklyn (80)</p> |
| b                 | <p> <i>passim</i></p>  | <p> br/bl, Sethe (e6, e7), Posener (E16, E43).<br/>See also <i>alep</i></p>   |  |




| Semitic consonant | Unilateral sign   | Bi- and trilateral sign   | Syllabic group  |
|-------------------|---|---|---|
| <i>g</i>          |  Posener (E5 etc.), Byblos, 13th Dyn. ( <i>ḡl</i> ). This sign serves also as <i>k</i><br> Posener (E15?) |   |   |
| <i>d</i>          |  Sinai, Posener, ( <i>passim</i> ), Brooklyn (15?)<br> Brooklyn (18?)                                     | See <i>q</i>  |  <i>du?</i> Posener (E5) |
| <i><u>d</u></i>   |   |   |   |
| <i>h</i>          |  Sinai (163), Sethe, Posener, Brooklyn ( <i>passim</i> )   |   |   |
| <i>w</i>          |  Brooklyn (18). Cf. remarks on consonants (below)  |  <i>wr/wl</i> , Posener (E17, E59) |   |

z


 Sethe (e13 etc.),  
Posener (*passim*). This  
sign serves also as s  
 ? Sethe (e6),  
Posener (E16)



h

 Sethe, Posener  
(*passim*), Brooklyn  
(11, 80)

()   hr/hl, Sinai  
(110), Posener (*passim*)



h



 Sinai, Sethe,  
Posener (*passim*),  
Brooklyn (17, 32)


•   hr/hl, Sethe  
(e7, e23), Posener (E48)


t

y


  Sethe (*passim*),  
Posener (E4, E37,  
E50? E62?)














  Sethe (e23?),  
Posener (*passim*),  
Byblos (*ypšm*'b),  
Brooklyn (80)  
" Brooklyn (62)

 Brooklyn (10?)

 yn, Byblos  
(*yntn*), otherwise 'n  
(see *alep*).

See *alep* also for 'y

 zu (*su*),  
Sethe (e14)

| Semitic consonant | Unilateral sign   | Bi- and trilateral sign   | Syllabic group  |
|-------------------|---|---|---|
| <i>k</i>          |  <i>passim</i> . This sign serves also as <i>g</i><br> Posener (E11?) | See <i>ś/t</i>  |   |
| <i>l</i>          | See <i>r</i>  |   |   |
| <i>m</i>          |  <i>passim</i><br> <i>passim</i>                                      |  <i>mn</i> , Sethe (e26)<br> <i>mr/ml</i> , Sethe (e15?, e16?), Posener (E1)<br> <i>mr/ml</i> , Posener (E23, E24)<br> <i>mt</i> , Sethe ( <i>passim</i> ), Posener (E26, E30, F3).<br>See also <i>alep</i> , <i>ś</i> , <i>t</i> |  <i>ma</i> , Posener (E29, E48?)<br> <i>mu</i> , Sethe, Posener ( <i>passim</i> ), Sinuhe (B30), Byblos ( <i>'bšm</i> , <i>ypšm'b</i> )<br><br> etc.<br><i>nu</i> , Sethe, Posener ( <i>passim</i> ) |
| <i>n</i>          |  <i>passim</i><br> Posener (E48?)                                     | See <i>alep</i> , <i>y</i> , <i>m</i>   |   |

s

𐎓 Sethe, Posener  
(*passim*).

This sign serves also  
as *t* (and *z*?)

𐎓 ? Posener (E20  
etc.). This sign serves  
certainly as *ś* and *t*

c

𐎓 *passim*. This  
sign serves also as  
*alep*













ḡ

See *ś/t*

𐎓 *c<sub>r</sub>/c<sub>l</sub>*, Sethe  
(e1, e22, f12),  
Posener (E54, E61),  
Brooklyn (35, 64)

𐎓 *c<sub>pr</sub>*, Sethe  
(e11), Posener (*pas-*  
*sim*), Brooklyn (9)

𐎓 *c<sub>q</sub>*, Brooklyn  
(37, 87)

| Semitic consonant                 | Unilateral sign  | Bi- and trilateral sign  | Syllabic group  |
|-----------------------------------|--|--|---|
| <i>p</i>                          |  <i>passim</i><br> Posener (E5, E42)   |  <i>pr/pl</i> , Posener (E11?).<br>See also <i>c</i> , <i>t</i> |   |
| <i>s</i> ,<br><i>d</i> , <i>z</i> |  <i>passim</i> . This sign serves also as <i>z</i>  |  | See <i>z</i>  |
| <i>q</i>                          |  <i>passim</i>  |  <i>qd</i> , Sinuhe (B29).<br>See also <i>c</i>                 |   |
| <i>r</i> , <i>l</i>               |  Sinai, Sethe, Posener ( <i>passim</i> ),<br>Sinuhe (B8)<br> Sethe, Posener, Brooklyn ( <i>passim</i> )<br> Posener (E5?) | See <i>alep</i> , <i>b</i> , <i>w</i> , <i>h</i> , <i>h</i> , <i>m</i> ,<br><i>s</i> ? <i>c</i> , <i>p</i> , <i>š</i> , <i>š/t</i> ?, <i>t</i>   |  <i>ra/la</i> , Posener, Brooklyn ( <i>passim</i> )<br> <i>ru/lu</i> , Sethe (e27, e28, f18), Posener (E21, E45, E59)<br> <i>ru/lu</i> , Sinai (81), Sethe (e7, f6), Posener ( <i>passim</i> ) |

|               |  |  |   |
|---------------|--|--|---|
| <p>š</p>      | <p>— <i>passim</i></p>   | <p>šr/šl, Sethe (e27, e28, f18), Beni Hasan, Posener (E30? E45)</p>  | <p>šsu, Sethe (e4-6), Posener (E52, E53, E56?)</p>  |
| <p>t (š?)</p> | <p>  , — Sethe, Posener (<i>passim</i>), Brooklyn (14, 27). This sign may have also stood for s</p>  | <p>tk (šk? sk?), Khusebek, Brooklyn (<i>passim</i>)<br/> tmr (šmr? smr?), Posener (E20)<br/> tp (šp? sp?), Posener (E11)</p> | <p>tu (šu? su?), Posener (E57, F6), Brooklyn (12?)</p>  |
| <p>t</p>      | <p>△ Sethe, Posener, Brooklyn (<i>passim</i>), Byblos (<i>yntn</i>). This sign serves also as d<br/><br/> = Sethe (e9), Posener (E4)<br/> See syllabic group. Sometimes perhaps consonantal as in Egyptian</p> | <p>tm, Sethe (e22), Posener (E20, E25, E54)<br/> tr/tl, Sethe (e8), Posener (E22? E49). See also m</p>                       | <p>ta, Sethe (e9, e13, e22), Posener (<i>passim</i>), Brooklyn (69? 88?)<br/> ti, Posener (E25?, E60), Brooklyn (17, 18, 59; in 18 perhaps di, see d), Byblos (<i>yntn</i>)</p> |

### 2.5.2 Notes on the Semitic consonants

No examples of the transliteration of *d*, *t* or *g* are recorded, and only one of the Semitic "trio" *š*, *d*, and *z* is represented. Northwest Semitic consonants missing from Akkadian but present in Egyptian, like *h* and *c*, are faithfully transliterated; to others, that are represented in Akkadian but do not exist in Egyptian such as *t*, no univocal hieroglyphs could be assigned.

**Alep** – Egyptian *c* was used to represent Semitic *alep* in words with *h* (Albright 1928, 248–249 etc.; Rainey 1972, 396), reflecting Egyptian spelling, e.g. *chmt* rather than *ihmt* (bank). As far as is known, besides the rare use of *c*, only *i* (reed) was used in the Middle Kingdom to transliterate Semitic *alep* (see also *y* below). *š* represents Semitic *r* and *l* exclusively, though the use of the Egyptian signs containing *r/l* for Semitic *r* and *l* constantly increased (Albright 1954, 224). On one occasion (1954, note 28) Albright interpreted the *š* bird as Semitic *y*, which seems far-fetched.

**d** – Egyptian *t* may occasionally have served for Semitic *d*. See also *r*.

**w** – Some of the Egyptian *ws* may be consonants rather than *matres lectionis*, for instance in personal names which include Egyptian *šw* or *rw*, probably *\*lawu-* (Moran 1957, 342–343), in **Sinai 81**, **Posener E21** and elsewhere, and perhaps also in the **Brooklyn papyrus (18)**.

**z** – The first letter in the names *tbšwnw* (**Sethe e6**) and *tbšwhddi* (**Posener E16**) has been read as Semitic *z* since Albright first suggested this in 1928 (p. 239), equating *tbšwnw* with the name Zebulun. This idea, however attractive, does not provide satisfactory explanation for the unusual transliteration, and all the other examples confirm that Egyptian *t* represented Semitic *s*, and Egyptian *d*—Semitic *z* or *š* (cf. Rainey 1972, note 22 and p. 395; 1982, 339).

**y** – The two reeds in the Posener group sometimes represent not *y* but a vowel (*mater lectionis*) and *alep*, e.g. in **Posener E31** (Rainey 1972, 396). Proof for this comes from a variant of the same name written with a single reed, *alep* with no vowel. It seems very likely that the (rare) combina-



tion of three reeds in the Posener group is to be read *ya* or *yi*. Nevertheless, a single reed, serving as phonetic complement to a biliteral sign, 'n, represents *y* in the name of prince Yantin of Byblos on scarabs. The duality sign is also used as *y* on one occasion, in the **Brooklyn papyrus** (62). See above for Albright's suggestion that Egyptian 3 was used to transliterate Semitic *y* in the Brooklyn papyrus.

*k* – The *k* in the name of *ikspt* (\*'aktapa, Achshaph, Posener E11) is probably written *k3w* (raised arms and plural strokes) in one of the variants. If so, this would be one of the rare instances in the Execration Texts that 3 did not represent Semitic *r* or *l*. This *k3w*, like in certain Egyptian spellings, was probably pronounced *k*.

*l* – See *alep* and *r*.

*s* – See *ś/t*.

*š, d, z* – Egyptian *d* is likely to have represented Semitic *d* and *z* in addition to *š* (and, of course, *z*), but so far the only, and uncertain, evidence for this in the Middle Kingdom is the spelling of Hazor's name (Posener E15, cf. Albright 1941, note 13; Rainey 1982, 351).

*r* and *l* – In this brief survey it is impossible to elaborate on the relationship between Egyptian 3 and *r/l* in the transliteration of Semitic *r* and *l* (cf. Albright 1954, 224; Rössler 1966, 218–229, esp. 218–220). It should however be noticed that both can appear in the same word, e.g. in **Sinai 81** and in **Posener E13 and E48**. It seems unlikely that Egyptian *r/l* was used for Semitic *d* too as Rössler thought. True, Egyptian *d*, sometimes replaced by *t* (see the table above) as in the New Kingdom, turns up only rarely in Middle Kingdom and Second Intermediate Period transliterations outside the name *hddw*. But it is nevertheless represented, like in *qdm* in the story of Sinuhe.

*ś/t* – Egyptian *s* represented Semitic *ś* in the New Kingdom, but in the earlier system only one example is known, **Brooklyn 27**. This sign was also used in writing the sibilant, originally *t*, in the names of Shechem, Laish, Ascalon, Achshaph etc. (Rainey 1982, 340). However, sometimes Egypt–

tian *s* served to transliterate what is thought to be Northwest Semitic *s*, a case in point being the ruler of Baq<sup>c</sup>atum, *smšhr*, **Posener E20** (cf. Moran 1957, 342). This seeming discrepancy stems from the uncertainty still surrounding the Amorite sibilants in cuneiform texts. During the Middle Kingdom the Egyptians in all likelihood transcribed foreign names as they heard them, so that different phonemes with a similar pronunciation or with no exact parallel in Egyptian would be written with the same sign. These are exceptional cases, however, and usually the system was remarkably accurate.

*t* – As in Egyptian proper, so in the transliteration of Semitic words, Egyptian *t* was occasionally used for *t*, as was *tī* (Gardiner U33) (see section 2.5.5).

### 2.5.3 Egyptian bi- and trilateral signs with consonantal value

About twenty biliteral and two trilateral signs in the Egyptian system of writing foreign names are considered to be of consonantal value.<sup>3</sup> Most of them have full or partial phonetic complements. It is hard to imagine that even some of the vowels would have been fixed. A special case, however, is "alphabetical" *mt*, which is often written with the hieratic substitute for the determinative of a man with blood streaming from his head (Gardiner's sign Z6), Egyptian *mwt*; it appears in Semitic place names such as Jarmuth—*y(ī)šm(w)t*, *\*yarimuta*—that contain the syllable *mut* (**Sethe, passim**, **Posener E26, F3** and in a personal name **E30**). Likewise, the spelling with "reeds and legs" of the name of Šutu's ruler, *īybm* (perhaps *\*'ayyābum*, Job, **Sethe e4**, cf. Albright 1928, 239), had been interpreted as biliteral 'y, but its appearance as a syllabic group 'i in the New Kingdom (Albright 1934, Group IIID, spelt slightly differently) probably indicates that it was meant to be used as a syllabic group (*\*ay*) as early as the Middle Kingdom.

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3. Most of the biliteral signs that have *š*, *y* or *w* as their second component are regarded as syllabic and are dealt with in section 2.5.5.

### 2.5.4 *Matres lectionis*

The use of *matres lectionis* in the Middle Kingdom writing of foreign names antedates their introduction into the Northwest Semitic alphabet by about a millennium. The reed sign, in addition to representing *alep*, was also used for medial and final *a* and *i*. Clear examples of this may be found for instance in **Sethe f3** and **Posener F2** (*tw3ti*, \**'ullasa*) and **Sethe e1** (*-ibi*, \**-'abi*). Medial *a* probably exists in *inh3* (\**'anharu*?, **Sethe e16**; Rainey 1972, 395) and medial *i* can be seen in the name of Pella (*pih3wm*, \**pihilum*, **Posener E8**) etc. and in personal names (*šmšwirim*, \**šamsu'ilima*, **Sethe e21**). A special use of the reed as medial *e* or *a* of the dual occurs in the name Shechem (*skmimi*, \**takmēmi/takmāmi*, **Posener E6**; Albright 1941, note 11; Rainey 1972, 396). In another example, the name of Hazor (*hdwi3i*, **Posener E15**), the reed, if not a scribal error, may have been used to lengthen the vowel (whether an original *ū* or an exceedingly early *ā* > *o* shift is unknown, cf. Albright 1941, 19 and note 13; 1941a, 33; Rainey 1982, 341). It is impossible to tell whether the reed served as *a* or *i* (or another vowel) where no parallel cuneiform transliteration exists; its use as *u* seems unlikely. The Egyptian duality sign is often used as a *mater lectionis* for *i*, for instance in **Posener E22**. In **Posener E13** it replaces the reed at the end of a word.

Egyptian *w* served as a *mater lectionis* for *u* with few exceptions: *i* in the name of Abel, **Posener E47** (*ibw3m*, \**'abilum*), and *ē* < *ay* in Laish, **Posener E59** (*šwsy*, \**lētī*), and Beth Shemesh, **Posener E60** (*bwtišmšw*, \**bētīšamšu*, cf. Rainey 1972, 395), unless this is a misspelling.

### 2.5.5 Syllabic groups

Most interesting of all are the fourteen syllabic groups, some of which were absorbed into the syllabic writing of the New Kingdom (see also the notes on biliteral *mt* and *'y* in section 2.5.3). The signs are drawn in the table in section 2.5.1.

| Text<br>Sign           | Sethe           | Byblos (12th<br>Dyn.), Sinai,<br>Sinuhe | Posener         | Brooklyn,<br>Byblos (13th<br>Dyn.)             |
|------------------------|-----------------|---|-----------------|--|
| <i>zu/ṣu</i>           | e14             |   |                 |  |
| <i>mu</i>              | <i>passim</i>   | Sinuhe (B30),<br>Byblos                 | <i>passim</i>   |  |
| <i>nu</i>              | <i>passim</i>   |   | <i>passim</i>   |  |
| <i>ru/lu</i><br>(ribs) | e27, 28,<br>f18 |   | E21, 45,<br>59  |  |
| <i>ru/lu</i><br>(lion) | e7, f6          | Sinai 81<br>(Sesostris<br>III)          | <i>passim</i>   |  |
| <i>ṣu</i>              | e4-6            |   | E52, 53,<br>56? |  |
| 'a, a'                 | f21             | Sinai 163                               | <i>passim</i>   | Brooklyn 33?                                   |
| <i>ta</i>              | e9, 13,<br>22   |   | <i>passim</i>   | Brooklyn 69?<br>88?                            |
| <i>tu (du)</i>         |                 |   | E5?             |  |
| <i>ma</i>              |                 |   | E29, 48         |  |
| <i>tū</i><br>(ṣu/su?)  |                 |   | E57, F6         | Brooklyn 12?                                   |
| <i>ra/la</i>           |                 |   | <i>passim</i>   | Brooklyn,<br><i>passim</i>                     |
| <i>ti</i>              |                 |   | E60,<br>E25?    | Brooklyn 17,<br>18, 59;<br>Byblos, <i>yntn</i> |
| 'u                     |                 |   |                 | Brooklyn 80                                    |

The following conclusions about the use of syllabic groups in the Twelfth and Thirteenth Dynasties differ somewhat from those of Albright (1954, 224): in the Sethe texts, there are six syllabic groups with *u* (two of these are for *ru/lu*), and a further two groups with *a*. The syllable *a'* appears once; see van de Walle's correction (1940, 108) of Sethe's drawing of the seated man. The Egyptian *tt* sign, Semitic *ta*, should sometimes be read as *t*, or *t* with any vowel (see section 2.5.2). Three of these groups appear also at Byblos, in Sinai and in Sinuhe, but it is hard to draw any conclusions from the presence or absence of particular groups in these texts as they contain but little material. Five of the Sethe groups also reappear in syllabic writing from the New Kingdom: *ru/lu* (lion) (Albright 1934, group XC, with the small vertical stroke missing here), *'a* (*ibid.*, group IIIA; see also Rainey 1972, 396), *ta* (Albright 1934, group XIXA), *mu* (Edel 1966, 66 etc.) and *nu* (*ibid.*, 62 etc.).

All the signs with *u* known from Sethe's texts, save *su/zu*, occur in Posener's Execration Texts, and the group *tu* makes its debut. One group, *du* (*tu*), is found only here. The number of syllables with *a* rises: the groups *'a* (*a'*) and *ta* appear again, and there are two new groups—*ma* and *ra/la* (the latter may have sometimes been used as a consonant, see Posener E5). The sole example of a Middle Kingdom group with *i* (*ti*) is to be found in the Posener texts (in the New Kingdom too, most of the groups with *i* were written with a consonant and a *mater lectionis*). Groups occurring for the first time in Posener's texts which survive into the New Kingdom include *tu* (*śu*) (Albright 1934, group XIVD), *ra/la* (*ibid.*, group XA) and *ti* (*ibid.*, group XIXD).

Besides three problematic groups from the Brooklyn papyrus, *'a*, *ta* and *tu*, which appear in Posener's texts, three certain groups are known in the papyrus—*ra/la*, *ti* and *'u*, two of which are also present in the Posener texts. An abbreviated form of *ti* is known from a scarab of Yantin, prince of Byblos during the Thirteenth Dynasty. The new group, *'u*, exists in the New Kingdom (Albright and Lambdin 1957, 127).

To summarize: five of the eight syllabic groups from Sethe's texts have parallels in the New Kingdom. Posener's

texts include eight groups that continue on to the New Kingdom, five of those known from Sethe's documents and three new ones. The material from the Brooklyn papyrus is more advanced in many respects (see below), but is smaller in quantity. It contains at least two (and perhaps up to five) of the groups known from Posener's texts, and also has one new group.<sup>4</sup>

## 2.6 Summary and conclusions

The writing of foreign names in Egyptian in the early second millennium is principally alphabetic. Biliteral signs are nearly always accompanied by both their consonants as phonetic complements, and should be regarded as no more than an expression of the writing habits of the Egyptian scribes. Syllabic groups are rare. In Sethe's texts, even syllables with *u* were generally written with a consonant and a *mater lectionis*. The rise in the number of syllabic groups in Posener's texts should not be ignored, but these groups are still in the minority, and the spelling is completely different from the syllabic writing of the New Kingdom. Not only in its increased use of the syllabic groups (especially *ra/la*), is the Brooklyn papyrus more advanced, but also in the almost total abandonment of Egyptian *š* to represent Semitic *r* and *l* (Albright 1954, 224; he did not explain the *š* in No. 29). As noted by S. Wimmer (personal communication, see section 2.3.2), this does not necessarily stem from the juniority of the papyrus; it could reflect the differing languages of magical and administrative texts. Even so, it should be remembered that the Brooklyn papyrus is still mainly "alphabetic" and it does not yet show the use of *š* to transliterate Semitic *a*, as was customary in the syllabic writing of the New Kingdom. Alongside syllabic groups with *u*, the syllables *du*(?), *pu* and *tu* were written in the Brooklyn papyrus with a consonant and a *mater lectionis*, and, because there existed no suitable short Egyptian words, this spelling continued into the New

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4. Four of the five groups whose appearance in the New Kingdom has not been mentioned above are actually documented from this period, but they occur very rarely, and some examples are open to question (Helck 1971, esp. 567-569).

Kingdom. Because of the syllabic concept of the entire group-writing system (Edel 1949, 46; Albright 1954, 224 and note 7), these signs should be transliterated in the New Kingdom as *du*, *pu* and *tu* and not as *d-u*, *p-u* and *t-u*.

The rare use of genuine syllabic groups in the Twelfth and Thirteenth Dynasties indicates that they originated, like the biliteral signs, in the writing habits of the Egyptian scribes who, for convenience's sake, used them to transcribe syllables common in foreign names. Only at the end of the Second Intermediate Period or in the early Eighteenth Dynasty, probably under the influence of cuneiform script, did the Egyptians fully exploit the phonetic possibilities inherent in the syllabic groups, and create the system of group writing from them. As for the "alphabetic" spelling of names of persons and places in Asia during the Middle Kingdom, the uniformity and accuracy by which it is generally characterized demonstrate that here, too, the Egyptian scribe created the system after a deliberate and thorough analysis of Northwest Semitic consonantal phonetics (but not phonemics).

Were the inventors of the Northwest Semitic alphabet, whose letter forms were borrowed from Egyptian hieroglyphs, aware of the Egyptian system of writing foreign names? It is now clear that influence in this direction could only have been exerted during the Middle Kingdom, when foreign names were being written in an almost completely alphabetic system.<sup>5</sup> If the inventor of the alphabet had been literate in Egyptian, his most striking achievement was the

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5. Albright hinted at this in 1934 (p. 11) while he still dated the Proto-Sinaitic inscriptions to the Middle Kingdom (1936, 8), but it is not clear exactly what he had in mind, as the context here was the Second Intermediate Period. From 1948 on, he dated the Proto-Sinaitic texts to the New Kingdom (1948, 7). Nevertheless, the idea that the invention of the Semitic alphabet was somehow related to the writing of foreign names in Egypt in the Middle Kingdom remained with Albright to the end of his days: "...we may ultimately find ourselves forced back into the Twelfth Dynasty for the origin of our alphabet" (1966, 15).

conclusion, utterly foreign to the Egyptian scribes, that an alphabetic writing system could stand on its own. What was left to be done consisted mainly of technicalities--the system at his disposal was tried and tested; with its twenty odd Egyptian uniliteral signs it could transliterate 24 Northwest Semitic consonants (the remaining 3-5 consonants are undocumented, but there is little doubt that they, too, were accounted for). On an acrophonic basis, the inventor of the alphabet chose for his letters Egyptian hieroglyphs whose forms would reveal to his compatriots their Northwest Semitic alphabetic values. Acrophony itself was nothing new--Middle Kingdom Egyptian employed it in cryptographic writing (Osing 1975).

The possibility that the Northwest Semitic alphabet was modelled after the Middle Kingdom "alphabetic" writing of foreign names is supported by other, indirect evidence (see Sass 1988, 135-144) which hints that a Twelfth Dynasty date for the Proto-Sinaitic inscriptions is preferable to an Eighteenth Dynasty one. Even if all three groups of execration texts will turn out to date to the early Thirteenth Dynasty, there are enough other texts to show that the Egyptian "alphabetic" system was already well established in the Twelfth Dynasty (see sections 2.3.1 and 2.3.2). Employing this system, the names of Semites who joined the Egyptian mining expeditions were written in Sinai during the reigns of Sesostriis III and Amenemmes III (cf. Moran 1957, 344-345). Some of these Semites are recorded to have come from Syria-Palestine, such as the famous *ḥbdd(m)* ("Hebbeded" or "Hebbedem", \**ḥab(i)-addadu(m)*, *loc. cit.*), brother of the prince of Rethenu, while the origin of others is not specified. If I am right in preferring a Twelfth Dynasty date for the Proto-Sinaitic inscriptions, and as long as undisputed Semitic alphabetic texts of the Middle Kingdom are lacking in Palestine or Egypt after a century of intensive excavations, Sinai at this period should be viewed as the probable birthplace of the alphabet.

If the Semitic alphabet was indeed modelled on the Middle Kingdom "alphabetic" writing of foreign names (incorporating knowledge of acrophony from cryptographic writing), its inventor(s) missed a golden opportunity for representing vowels by means of *matres lectionis*. For reasons



of *weltanschauung* (Kaplony 1972?, 3–14, esp. 8), the Egyptians did not adapt alphabetic writing with *matres lectionis* to their language, and eventually abandoned this system even for writing foreign names. It is however incomprehensible why the inhabitants of southern Canaan, who were not saddled with an ancient scribal tradition in their own language, were content to adopt only the consonants and did not from the very start take over the *matres lectionis*,<sup>6</sup> which form a step on the way to assigning special letters for vowels as in the Greek script—the ultimate refinement of the alphabet.

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6. Or the syllabic groups.

## CHAPTER 3: THE EARLY HISTORY OF THE SOUTH SEMITIC ALPHABETS

### 3.1 Introduction

SHORT inscriptions in South Arabian script, written on pottery vessels that date to the tenth–ninth and the sixth(?) centuries respectively, had been found at Ḥajar Bin Ḥumeid in Qataban and at Tell el–Kheleife near Elat. Several stone inscriptions and rock graffiti from the Arabian peninsula had been dated by Jamme to the beginning of the first millennium B.C. on the basis of the archaic appearance of the letters. A handful of South and North Arabian inscriptions have been discovered in Mesopotamia on clay tablets, pottery vessels and other artefacts, of which one is dated by stratigraphical evidence to the seventh century. A number of seals of unknown provenance, but datable on stylistic grounds to roughly the eighth–seventh centuries, carry South Semitic inscriptions. In Jerusalem, one, two or three short texts, incised on pottery vessels, were unearthed in the City of David in a late–seventh–early–sixth–century context.

Since 1954 (p. 22), Cross has held to the opinion that the early South Semitic script (known as Proto–Arabic, see below) developed from the Proto–Canaanite script in the fourteenth or thirteenth century; this hypothesis is based on the shapes and stances of some of the letters and the unfixed direction of writing. While Albright had already hinted at this as early as 1926 (p. 82), solely on theoretical grounds, Cross based his considerations on some of the inscriptions mentioned above, even though he did not date them earlier than the beginning of the first millennium. The most pressing questions in this context are:

1. Do the archaeological evidence and written sources confirm the existence of a literate society in the Arabian peninsula in the fourteenth–thirteenth centuries?

2. Do the characteristic features of the early South Semitic script—the letter forms, their names and order, and the direction of writing—demonstrate a link with the fourteenth–thirteenth–centuries Northwest Semitic alphabet?

I believe this is not so, and that the birth of the South Semitic alphabet is best dated to the eleventh or tenth century (see section 3.4.2). The question of the language in which the South Semitic texts discussed here were written is not directly relevant to these topics.

Jacqueline Pirenne has dated the beginning of the South Arabian culture to the sixth–fifth centuries B.C., a hypothesis rejected by most scholars in this field of research. For a summary of her reasoning, see Pirenne 1987 and Naveh 1982, 43–44; see also section 3.4.1. Lundin (1982, 28) has suggested a date in the fifteenth century for the earliest South Arabian script, and he, too, is the only supporter of his theory.

### 3.2 Archaeological and historical background

From about the seventh century onwards, North Arabian tribes and their rulers left thousands of inscriptions, most of them rock graffiti, in Arabia and the neighbouring deserts (see Naveh 1982, especially 45–47). It is believed that they learnt the alphabet from the inhabitants of the kingdoms of South Arabia, when the use of alphabetic script was already widespread throughout the Near East (see for instance von Wissmann 1970, 949–950). It is hard to imagine a similar process taking place in South Arabia in the fourteenth or thirteenth century (or even in the twelfth–tenth centuries). In other words, it seems logical that the alphabet was adopted in South Arabia by a society at a high level of social and cultural development, i.e. the kingdom of Sheba. The starting point of this development in South Arabia must have been the accumulation of wealth as a result of the increasing trade in incense and other luxury goods with countries to the north. Finkelstein (1988) interpreted the late–twelfth–eleventh-century archaeological picture in the Beersheba valley as reflecting the emergence of a prospering and independent desert terminus of one of these trade routes. The domestication of the camel as a pack animal, combined with an increase in demand for incense, gave the main impetus to this trade, and created the conditions for the formations of states in Southern Arabia.

Estimates of the date of the camel's domestication range from the beginning of the first millennium, according to Neo-Assyrian evidence, to the end of the third millennium. The literature dealing with the domestication of the camel is extensive, and only a selection can be mentioned here. The entries for "Kamel" in *LA* and *RLA* represent the "traditional" approach—which I prefer—which maintains that the process of domesticating the one-humped camel (*Camelus dromedarius*) was complete by the end of the second millennium at the earliest. There are no earlier texts dealing with one-humped camels, and no archaeological finds showing laden animals, from Mesopotamia, Syria-Palestine or Egypt. Among the scholars who disagreed with this were Ripinski (1983 and elsewhere) and Dostal (1979). They disregarded the evidence presented in the two lexicons mentioned above, and in Midant-Reynes and Braunstein-Sylvestre 1977, one of the most thorough pieces of research on the camel in ancient Egypt. Of all the texts and material remains used by the proponents of a pre-first-millennium domestication, only a single find cannot be dismissed off-hand. This is a crude figurine of an animal carrying two jars, found by Petrie in a tomb at Rifeh, near Asyut in Middle Egypt. Petrie dated it to the Ramesside period, but he never published any of the tomb's contents except for this figurine (reference in Midant-Reynes and Braunstein-Sylvestre 1977, 350). The object is so crudely fashioned that I am really not at all sure that its maker intended to represent a camel. Representations of unladen camels do not provide any evidence that can settle this issue, any more than actual physical remains of camels would, unless it could be proved that they came from domesticated beasts. Rock art is unreliable in this context, the dates assigned to the drawings by different scholars having so little factual basis. To summarize: even though it is theoretically possible that the camel was domesticated earlier, there is no evidence known at present for the caravan trade before the end of the second millennium.

Irrigation by means of dams was a characteristic feature of advanced civilization in South Arabia. One calculation, based on measuring the accumulated alluvium in the dammed wadis (Brunner 1983, esp. 106–111), placed the beginning of dam agriculture at the end of the third millennium:

1.1 m of sediments accumulate centennially, and the deposits in the fields near Marib, the capital of Sheba, are about thirty metres thick—representing about 2,700 years. The Quran (Chapter 34, verses 15–17) relates the breaching of the Marib dam in the lifetime of the Prophet; if the 2,700 years are reckoned back from this time or slightly earlier, the construction of the first dam could be dated to the late third millennium. Schmidt's calculation (1987, esp. 61) is somewhat different. I am not competent to judge these sedimentological calculations, but most of the archaeological evidence for a higher culture so far found in South Arabia, and certainly that from Marib, is actually no earlier than the early first millennium. This is also the period of the Queen of Sheba's visit to Jerusalem. In any case, such early dates for the dams are not relevant to the issue discussed here: even those who favour an early date for the beginning of the South Arabian script would not place it earlier than the mid-second millennium.

Jocelyn Orchard (1982) has attempted to explain this gap in the archaeological record. Her arguments (*ibid.*, pp. 17–21) can be summarized as follows: The earliest settlements in South Arabia were built on high spots in the wadi beds, but the rising level of alluvium drove their inhabitants to seek higher areas still. This also accounts for the fact that the occupation horizon is not very thick at many of these sites. Since the earlier sites are now covered by alluvium, almost all known sites date from the first millennium B.C. and the first millennium A.D.

To sum up, it is possible that an advanced agricultural civilization existed in South Arabia as early as the second millennium B.C., but evidence for the domestication of the dromedary as a pack animal, the caravan trade and a high level of civilization that culminated in the emergence of the kingdom of Sheba comes from the end of that millennium at the earliest. It seems that this latter period saw the development of the conditions necessary for the adoption of a writing system in South Arabia.

### 3.3 The early inscriptions

#### 3.3.1 Introduction

In the most complete South Semitic alphabets, all 29 Proto-Semitic consonants are represented, compared to 27 in Ugaritic and perhaps the same number in the early Proto-Canaanite script. A proposal as to the time and nature of the adoption of the alphabet in Arabia is made in section 3.4.2. The nature of the adoption concerns the very concept of alphabetic script, the forms of the letters, their names and their order.

In this section we shall present those South Semitic inscriptions which, rightly or wrongly, are thought to antedate the Persian period. As far as their distribution is concerned, few (2-5) were found in Arabia, including Tell el-Kheleife—two of these are written on pottery vessels, one on a stele, and two are rock graffiti. One, two or three short texts were found in Jerusalem (see section 3.3.5). Six were discovered in Babylonia, and they are written on pottery objects. Of the eighteen early seals of unknown origin with South Semitic inscriptions discussed here twelve are Neo-Imperial in style, and six are of Northwest Semitic style. It is interesting that many of the names on the former are Assyrian or Babylonian, indicating either an assimilating South Arabian element in the population, or a custom of Mesopotamians with ties to Arabia to have their seals inscribed in the local languages.

Only in the case of the Jerusalem texts (see section 3.3.5) and two seals were the originals collated; for most of the other inscriptions photographs were used. Those published only as drawings have been tentatively included. A selected bibliography is listed for each inscription, usually consisting of the *editio princeps*, principal discussion(s) and significant works not quoted in the latter.

### 3.3.2 Inscriptions from the Arabian peninsula

#### Pithos from Hajar Bin Humeid (figures 1–2)

Pithos, about 60 cm high, with a monogram in relief

Found in the excavations of the American Expedition in the 1950–51 season, field no. 3019

Present whereabouts uncertain<sup>7</sup>

Collated from Van Beek 1956, fig. 1

Bibliography: Van Beek 1956; Albright 1956; Boneschi 1958; *Hajar Bin Humeid*, *passim*; not mentioned in Garbini 1976

Van Beek based his dating of this inscription, which comes from Stratum S, on a 1956 radiocarbon date of a wooden beam found 1.70 m higher, in Stratum Q. The date given is 851 B.C.  $\pm 160$  (1011–691 B.C.). Another radiocarbon measurement from the same beam was carried out in 1962, yielding a date of 740 B.C.  $\pm 100$  (840–640 B.C.). When dendrochronologically calibrated (Pearson and Stuiver 1986), the mid-dates fall in the tenth or ninth century (975, 965 or 933 for the former, about 830 for the latter). The range is between the mid-thirteenth century and c. 800 or the mid-tenth century and c. 800 respectively. Wooden beams are not reliable for dating purposes, since a beam of well-seasoned wood could easily be older than the building in which it was last used. Moreover, if the sample for dating was taken from an inner ring of an old tree, it could yield a date considerably older than that of the associated stratum. The pithos was found in a round installation, whose attribution to Stratum S is prob-

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7. "The [Hajar Bin Humeid] collection belongs to the American Foundation for the Study of Man and was on loan to the Smithsonian for a number of years. Following Wendell Phillips' untimely death in the mid-70's, his sister, Mrs. Hodgson, removed the collection and photo negatives... I think the collection is now in Philadelphia, and someone told me that they are gradually unpacking it." (letter of G.W. Van Beek of 17 October 1989).

lematic (*Hajar Bin Humeid*, 14–15); it was probably a lined pit dug at the time of Stratum R down into Stratum S. The situation was further complicated by the fact that two sherds found in Stratum Q were conjoinable to sherds found within the installation. If in spite of this we accept that the pithos belongs to Stratum R, we must still consider the reliability of Van Beek's absolute chronology. He has dated Strata S–P to the eleventh–ninth centuries by means of ceramic parallels, mainly through comparisons to the techniques of slipping and burnishing known from Syria–Palestine. Moreover, Stratum R is dated to the tenth century because Stratum Q was dated to the ninth on the basis of the uncalibrated radiocarbon dates. A higher date is theoretically possible (see section 3.2), but it would be a mistake to base it solely on the higher date in the range given by one of the radiocarbon samples.<sup>8</sup> A date later than the tenth–ninth centuries is likewise possible: this vessel type exists in Strata S to M, presumed to span the eleventh to seventh centuries.

The monogram on the pithos does not seem more archaic than the earliest monumental inscriptions in Sheba. Van Beek's chronological conclusions about this text served von Wissmann as a starting point for the history and epigra-

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8. A radiocarbon date of 1330 B.C.  $\pm 110$  was obtained from the lowest stratum at Hajar et-Tamra in Wadi el-Juba in the south-east of North Yemen (Blakely 1983; Blakely and Sauer 1985; *Wadi al-Juba* 2, 87). Most other dates from this site are around the middle of the first millennium B.C. The calibrated mid-dates for 1330 are 1590, 1579 or 1528 and the range is from the early eighteenth to the mid-fifteenth century (cf. Pearson and Stuiver 1986). Another method of calibrating radiocarbon dates is based on historically-dated organic finds from Egypt (McKerrel 1975). Using this method for the Hajar et-Tamra material, a date between the mid-sixteenth and mid-fifteenth centuries is obtained, in excellent agreement with the most recent high-precision dendrochronologic calibration (Pearson and Stuiver 1986). Until fairly recently, McKerrel's method would have been untenable to most physicists (e.g. Klein a.o. 1982), since their pre-1986 consensus on calibrating second-millennium-B.C. dates was about 600 years higher.



phy of the kingdom of Sheba in the first half of the first millennium (see section 3.4.1).

Albright, like Jamme, read the inscription *khlm* (see Van Beek 1956, 9). Boneschi read *bhm* and interpreted this as a type of cereal, presumed to have formed the contents of the pithos. Both readings are possible, the difference lying in the number of lines in the monogram that each scholar considered were shared by two letters.

### Jar from Tell el-Kheleife (figures 3, 4)

Jar, 59 cm high, with an inscription incised on the shoulder after firing

Found in Glueck's excavations in 1938 in Room 40

Amman Museum (formerly PAM 40.594)

Collated from IAA photographs

Bibliography: Glueck 1938, 16–17; Ryckmans 1939; Albright 1952, 44–45; Boneschi 1961; 1968 with earlier references

According to Glueck (1938, 16), the jar was found in Level III, dated to the eighth–seventh centuries. Later (e.g. 1969, 53) he assigned the jar to Level IV, and the first half of the sixth century. These, like most of Glueck's stratigraphically-based dates at Tell el-Kheleife, are unreliable; who can guarantee that the jar is not actually from the Persian period, which is also represented at the site? I cannot adduce any typologically-based opinion for this jar, and as far as I know there have been no successful attempts to do so.

Glueck and other scholars (e.g. Cross 1954, note 26a) have read this inscription 'š[. Others have seen the signs as monograms, or rather ligatures, and Boneschi, for instance read, from right to left, *sl ḥd*, "[vin] pur, piquant" (1961), or "[résine] liquide, âcre" (1968). But there are other possibilities of unraveling the second ligature besides *ḥd* (see Ryckmans 1939; Boneschi 1961, 214 and chart 1 on page 99), and in neither case is the meaning transparent. Whatever the correct reading, the date of the inscription is uncertain, and it

may be later than the chronological range of the present study.

### Stele from Marib, Jamme 536 (figure 5)

Stele, 72 x 25 x ? cm, with an incised text

Incorporated in the wall of a modern house in Marib; discovered by Jamme at the beginning of the 1950s

Still at the same place?

Not collated

Bibliography: Jamme 1954; Albright 1954a

Jamme published only a drawing of this inscription; it reads *yšrh'l.xyl'n.* from left to right. He dated it to the eighth century or earlier. Albright (1954a, note \*) pointed to the similarity between the first sign in the second word and the *šade*, originating in *z*, of the el-Khadr arrowheads; he thus interpreted the Marib sign as *za* (see the discussion of *šade* in Sass 1988, 129–130). It is true that this sign resembles South Arabian *za* more closely than *gayn* (Jamme's rather surprising suggestion), but this, in the absence of a photograph, rests entirely upon Jamme's judgement and he admitted that the sign is unclear.

The sharply-angled *alif* and *nun*, if drawn correctly, indicate a much later date than that suggested by Jamme; cf. section 3.4.1 and von Wissmann 1976, 358–359.

### Rock graffito from Jebel Awrad, Jamme 863 (figure 6)

Rock graffito, about 30 x 20 cm

Discovered by Jamme in 1951 at Jebel Awrad near Wadi Beihan in Qataban

*In situ*(?)

Not collated

Bibliography: Jamme 1955; Albright 1955

The inscription has been dated to the tenth–ninth centuries solely on the basis of the crude letters and the vertical direction of writing. However, the script is probably South Arabian cursive (and not so very old), which is little-known (cf. Ryckmans' review, 1969, 246–247, of other of Jamme's identifications). Another possibility is that this is a Thamudic text, which would again imply it is considerably later than Jamme's estimate. All the letters in this inscription have parallels in the North Arabian scripts, including those letters with no South Arabian comparisons. See for instance von Wissmann 1970, 949–950, on the relationship between the South Arabian cursive and the North Arabian scripts.

Jamme and Albright differed on the reading of the problematic letters in this text, and neither of their translations is certain. Since there is only palaeographic evidence (which can be interpreted in a number of ways) for the inscription's date, and since there is no photograph available, this text cannot contribute to the issues discussed here.

### Rock graffito from el-Ḥasa, Jamme 1049 (figure 7)

Rock graffito, dimensions not reported

Discovered in 1957 by an Aramco employee on a hill near el-Ḥasa oasis in northeastern Saudi Arabia

*In situ*(?)

Not collated

Bibliography: Jamme 1966, 75; Ryckmans 1969, 146; Garbini 1976, 170–171

Once again, only a drawing of this rock inscription has been published (and this was made by an untrained observer). If the forms of the *dal*, *nun* and the third letter from the left in the second line are accepted at face value, some parallels can indeed be drawn with the early South Semitic inscriptions from Mesopotamia, as remarked by Ryckmans and Garbini; but see the reservations expressed about the preceding text.

### 3.3.3 Inscriptions from Mesopotamia

#### Sherd from Tell Abu Salabiḥ (figure 8)

Potsherd (of a storage jar?), dimensions not reported, with an inscription incised after firing

Collected in 1955 by an employee of the Basra Petroleum Company

Iraq Museum 62778

Collated from Roux 1960, pl. VI

Bibliography: Roux 1960, 27–28; Biggs 1965, note 2

This tell, located on an island in the Ḥor el-Ḥammar lake, is not to be confused with several namesakes, including the large and well-known tell to the northwest of Nippur. While surface finds on the tell represent most periods from the third millennium B.C. to the Islamic period, the sherd cannot be independently dated.

According to J. B. Segal (in Roux 1960, 27), this is a Lihyanite text, written from right to left and containing a complete word, *lkrb* (*l* and a personal name). It is not clear why Segal thought this inscription was Lihyanite. The letters are equally characteristic of the South Arabian scripts. Likewise, it is impossible to determine whether the word is complete or broken off at one or both ends. Judging from the stance of the letters, the text should rather be read from left to right, *?|brkl|?*. There is no reason, palaeographic or other, to link this inscription to the seventh-century South Semitic texts from Ur (thus Ghul, in Roux 1960, 28). The inscription could be somewhat, or a great deal, later.

#### Label from Ur (figures 9, 10)

Clay label, 4 x 2 cm, with incised letters

Found in Woolley's excavations at Ur in E-gig-par, field no. U.2919

Iraq Museum 978

Collated from Kienast 1958, pl. 46:D

Bibliography: *Ur Texts* I, 58 (No. 193); Kienast 1958, 44

The inscription was not found in a datable context, and the form of the label is of little chronological significance. In *Ur Texts* I, the inscription is described as Aramaic(?). Kienast suggested that it might be South Arabian, but did not offer a reading. The text runs from left to right, judging from the stances of the letters, and seems to read *dbd'* or *db<sup>c</sup>'*, or perhaps *db<sup>y</sup>'* if the third letter from the right be interpreted as a *rho*-shaped *ya* (see section 3.4.1). The *alif* has parallels in the North Arabian scripts.

### Bowl fragment from Ur (figure 11)

Fragment of a bowl rim, dimensions not reported, with an inscription, probably incised

Found by Woolley's expedition on the surface near Ur, field no. U.6900

Present location unknown (Iraq Museum?)

Not collated

Bibliography: Burrows 1927, 801-802; *Ur Texts* I, 58 (No. 192); *RES* 3930; Albright 1952, 40-41 with more references

We have no description or date for the sherd; the writing method was not reported, and only a drawing of the text has been published. It is not clear whether the ends of the inscription are complete or broken off, and any decipherment is therefore useless. If the letters have been drawn correctly, the text could read from left to right (as in Burrows 1927) *?]krsnfh[?*. Burrows and Albright considered the language to be Akkadian. The *nun* resembles the N-shaped letter on the seventh-century Ur brick (see below) and in other South Semitic inscriptions. The *ha* is reminiscent of the North Arabian (or South Arabian cursive?) form.

**Brick from Ur (figures 12, 13)**

Brick fragment, 9 x 8 x ? cm, with incised inscriptions

Found in Woolley's excavations in the 1920s in Room 7 of the E-nun-mah temple below a floor dating from the reign of Nebuchadnezzar, field no. U.7815

Iraq Museum(?)

Collated from *Ur IX*, pl. 36

Bibliography: Burrows 1927, 795–799; *Ur IX*, 31, 114, 133; *RES* 3934; Albright 1952, 39–40; Roux 1960, 28 and note 45; Biggs 1965, note 2; Garbini 1976, 172–174

The brick fragment was found under an intact floor laid during Nebuchadnezzar's reign; it dates, then, from near the beginning of the sixth century or most probably earlier, perhaps from the seventh century. The inscription looks like an attempt at imitating a Mesopotamian stamped brick (Burrows 1927, 798). The text inscribed outside the rectangular depression repeats the one written within it (*loc. cit.*). The stance of most of the letters, except for the *nun* in the second line, indicates boustrophedon writing, from left to right in the top line and from right to left in the lower line (Burrows 1927, 797). The text reads: *dnlyzbġk/drlśn*. Most scholars regarded this as Akkadian, and disagreement about the text's contents stemmed from different readings of the letters identified here as *lam* and *gim*(?). The form of the latter, and the forms of *dal* and *nun* are unusual (see section 3.4.1). Burrows identified the two problematic letters as *gim* and *lam* (the other way round from what is suggested here). Albright saw them both as *lams*, an assumption which is quite unacceptable. Garbini read the first as *lam* and the second as *ha*, but his reasons for the latter reading are unconvincing. The *lam* and *gim* I have opted for are based on the "classic" South Arabian forms of these letters, and are not certain.

## Tablet from Uruk (figure 14)

Fragment of a clay tablet, 5.5 x 5 x ? cm, with an incised inscription

Found in the excavations of the German Expedition, 1955-6 season, in a Parthian dump in the north-west of the E-Anna courtyard in Square Od XIV 4

Iraq Museum 59821

Collated from Kienast 1958, pl. 46:A, B

Bibliography: Kienast 1958; Roux 1960, note 45; Albright, in Biggs 1965, note 2; Biggs 1965, 38; Garbini 1976, 173

According to the excavator, Lenzen (in Kienast 1958, 44), the tablet is not earlier than the Parthian period, and is probably later. Biggs thought that this tablet, like that from Nippur, is from the Neo-Babylonian or Persian period, since the custom of writing on clay was no longer widespread after this time. If the N-shaped *nun* indicates an early date, as on the Ur brick, it would seem that Biggs is correct. Of course, the finding of the tablet in a Parthian dump does not by itself rule out the possibility that it is earlier than the dump.

The inscription is very carelessly incised and, apart from the line dividers, there are incisions which seem to have been intended to cross out the text. The stances of the letters seem to show that the whole text runs from right to left. The *alif* and *gim* are close to North Arabian examples. It is hard to accept von Wissmann's (1975, 29 and note 1) South Arabian attribution.

|        |  |        |                            |
|--------|--|--------|----------------------------|
| Side A | .....<br>]g <sup>o</sup> wlt<br>]bblrqbt<br>]nbyt<br>]ytt <sup>h</sup> x | Side B | ]xtnbk't<br>]xsrt<br>..... |
|--------|--|--------|----------------------------|

At first glance the *waw* looks like a cross in a circle, but only the circle and one line are actual incisions, while the line that seems to be a cross-stroke is really a stain. On the other hand, a *waw* containing a cross is not impossible, cf.

several Thamudic forms. The fourth letter in the second line on side A seems at first to be *ś*, though Kienast decided it was *ra* and I would agree with him. The two last letters on Side A are clear, but have not been identified. The first is rather like one of the Thamudic *has*. Albright (in Biggs) claimed to have deciphered the tablet as a list of names, most of them Babylonian. He reported this decipherment at the American Oriental Society's meeting in Washington in March 1963 (see the brief notice in *JAOS* 83 [1963], 401) but as far as I know never published it.

### Tablet from Nippur (figure 15)

Fragment, 3 x 4 x 0.5 cm, of a baked clay tablet with an incised inscription

Found in the excavations of the Chicago expedition, 1964–5 season, in the dumps of earlier excavations; field no. 9N T-12

Iraq Museum, number not reported

Not collated

Bibliography: Biggs 1965; Garbini 1976, 170–171

The tablet was not found in a dated context. Unfortunately, Biggs did not publish a photograph of it, so any discussion of his conclusions is tentative. Biggs, like Albright, thought that this too was an early tablet (see the preceding inscription). The direction of writing is not clear; the *ra* in the second line could indicate that this line at least runs from left to right.

Biggs read:

|   |                |
|---|----------------|
| } | <i>wk.smśr</i> |
| } | <i>qśr</i>     |
| } | <i>tk</i>      |
| } | <i>śx</i>      |

In identifying the *waw*, he reconstructed a cross in a circle, on the basis of the Uruk tablet, though, as noted above, the Uruk letter probably consists of a line in a circle. If the Nippur letter is complete, it could be an example of one of the North Arabian forms of *ta*. *Mim* (Biggs) in the same line is possible, though I prefer Garbini's *fa* (see section 3.4.1). I can hardly agree with the identification of the right-hand



letter in the third line as *ta*, in spite of Biggs' lengthy discussion (1965, note 8). As drawn, it must remain unidentified. Albright (quoted by Biggs) read the entire text from right to left. He saw in it a list of names, some Babylonian and others Arab, but too little is actually preserved to permit decipherment.

### 3.3.4 Mesopotamian-style seals of unknown provenance<sup>9</sup>

An effort was made to arrange the inscriptions in this section according to the chronology of the seals. The chance that some of the seals are forgeries is rather small; most have belonged to their collections for a century or more, and it is quite unlikely that seals with South Semitic inscriptions were being forged that early.

#### **Cherkasky seal (figure 16)**

Carnelian cylinder seal, 29 x 11 mm

Metropolitan Museum of Art, New York, 1986.  
311.58

Collated from MMA photograph of impression

Bibliography: Pittman & Aruz 1987, 75, 80; Bron  
1988, 440-441

Between carelessly executed guilloche borders an archer in a sphinx-drawn chariot shoots a rampant sphinx. The cross-lines on the chariot's body depict crossed quivers rather than disks or a chequer pattern; a long spear protrudes at the back, and the wheels are eight-spoked. In the field, apart from the inscription, are astral symbols and a plant. The cutting is linear, enhanced with modelling, mostly flat. Pittman classified the seal as "Syrian, peripheral Neo-Assyrian style, 9th-8th century". And indeed, the scene is related chiefly to Assyrian seals in the linear style that show

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9. I gratefully acknowledge the advice of Professor Pirhiya Beck and of my friend Tallay Ornan, with whom I discussed the seals in this section.

– 1. a kneeling archer, human or mythical, shooting a sphinx (Delaporte 1920, no. K. 3, from Khorsabad; Porada 1948, nos. 610–615), or – 2. a bull-hunt or battle from a chariot (*ibid.*, nos. 659–663), based on monumental art (cf. Collon 1987, 75, 83–84). On the other hand, the sphinx-drawn chariot and the sphinx-hunt from a chariot, separately or combined, are hardly, if at all, represented in Assyrian art. It is the uncommon scene, then, that renders our seal not purely Assyrian. While the guilloche (or chevron) border is typical of the earlier stage of the linear style (Porada 1948, 73, 79 etc.), and the long spear, too, is more characteristic of ninth-century chariots in Assyrian monumental art, the eight-spoked wheel is common later—the minor arts, certainly provincial minor arts, did not necessarily follow the developments of monumental art. The employment of modelling in our seal may also push down the date (see also section 3.3.8).

The inscription reads, from left to right, *sry*, a personal name with comparisons almost anywhere in the Semitic world (see Bron 1988, 441). The three letters could be either South or North Arabian.

### **Ward seal 1209** (figures 17, 18)

Carnelian cylinder seal, 21 x 12 mm

Pierpont Morgan Library, New York

Collated from Porada 1948, pl. CIV:702

Bibliography: Ward 1909, no. 270; 1910, no. 1209;  
Porada 1948, no. 702; Albright 1952, note 12;  
Garbini 1976, 171

A worshipper stands before Hadad with his attributes, and both are accompanied by demons ("genii"). Astral symbols occupy the upper part of the field. The composition is typical of Neo-Assyrian glyptic, as are many of the details—the standing demons, with birds' heads and upper wings that are shorter than the lower ones, holding buckets and "sprinklers", the gesture of the worshipper (see the **Anah seal**) and the *sibitti*. Porada dated this seal to the end of the eighth century: it belongs to the later development of the early drilled style, and some modelling is employed.

The inscription, *frblt*<sup>10</sup>, runs from left to right. The last letter is a (North Arabian?) *ta* rather than *dad* because of the ensuing Assyrian personal name Pir-uballit (Albright). For examples of a similar spelling, without *alep*, of this name in Aramaic cf. Millard 1976, 5. The name of the owner of the Walters Gallery seal also begins in *fr* (Garbini 1976, 171).

### Cylinder seal from Anah (figures 19, 20)

Cylinder seal of bluish chalcedony, 36 x 17 mm

Purchased in 1854 from a Captain F. Jones; reported to have been found in Anah on the Middle Euphrates<sup>10</sup>

British Museum 89155; exhibited in the South Arabian Room

Collated from the original and its impression

Bibliography: *RES* 2696; Ward 1910, no. 1207; Albright 1952, 42-43, with earlier references; Garbini 1976, esp. 167-169; Winnett 1980, 138; Collon 1987, no. 379

The seal shows a bearded worshipper facing Hadad with his attributes. Hadad raises his right hand in benediction and holds his symbol in his left. Behind the god stands another deity, probably female, gesturing in a similar way and holding a branch(?). The seal dates from the late eighth or seventh century (Albright 1952, 42). Similar compositions are widespread in Assyrian glyptic (see **Ward 1209** above), but several details of our seal are more often found in Babylonian seals: the deities' plumed headdresses with no additional element, the worshipper, who is gesturing with one hand only (i.e. with two parallel hands, see **Brussels seal**) and does not point a finger at the god (Porada 1948, 95; Tadmor & Tadmor 1967, 74; Naveh & Tadmor 1968, 451; Beck 1973, 58), perhaps also the empty field. It is indeed justified to label much of the glyptic of the late eighth-seventh centuries, mainly in the modelled style like our seal, "Assyro-Babylonian"; historically

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10. Letter from P.F. Rea of the British Museum of 7 June 1989.

it may belong between the capture of Babylon by Sargon in 710 and the fall of the Assyrian empire (Porada 1947, 157, 161, note 2, 162 and elsewhere; Buchanan 1981, 118).<sup>11</sup>

The stances of the letters vary even within the same line. Nevertheless, Albright read it boustrophedon fashion, *nbkrbd/drd'*, two Babylonian personal names. He interpreted the line to the right of the first letter from the right (in the impression) as a **word divider**; this line would usually be considered part of the *dal* but cannot be so here, if the two other triangular letters are indeed *dals*. Albright ignored the **word divider** between the second and third letters from the left in the first line, as well as the stances of most of the letters, all indicating that this line too should be read from right to left *dbrk.bn/drd'*. On the accompanying label in the British Museum the inscription reads from right to left, as it was read by van den Branden long ago, *dbrk.bn/zrz'*, and only the *zas'* identity is questionable. Garbini (1976, 167–169) thought that the incision in the first line belongs to the triangular letter, which he read as *dal*, and read the triangles in the second line as *dals*—a surprising suggestion. Garbini also thought that this is the earliest known Proto-Arabic text because of the form he made out of the *alif*; in fact this is the usual North Arabian form. If one wishes to isolate letters with archaic characteristics here, the triangular *dals* (if this is what they are) would be better examples (see section 3.4.1). The script of this seal is very similar to that of Jaussen and Savignac's **Lihyanite inscription 138** (Winnett, 1980, 138, is for a Dedanite origin) which is thought to be early (see von Wissmann 1970, 949–950).

### Erlenmeyer Cylinder seal (figures 21, 22)

Broken cylinder seal, now 28 x 16 mm; material not reported

Allegedly from Luristan

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11. Collon (1987, no. 379 on p. 83) placed the seal in the sixth century. One purpose of this chapter is to show that Arab-Mesopotamian contacts preceding the Persian Period can be earlier than the reign of Nabonidus.

Ex-Erlenmeyer collection, Basle; auctioned at Christie's, London, in late 1989 or early 1990<sup>12</sup>

Collated from Erlenmeyer and Erlenmeyer 1965, pl. XI:65, 67b

Bibliography: Erlenmeyer and Erlenmeyer 1965, esp. 14–16; Garbini 1976, 170–171

A kneeling archer and a leaping hunting dog pursue a fleeing ibex; a scorpion and a monkey, arranged vertically, frame the scene. A crescent, eight-pointed star and two divine symbols, broken away at the top (presumably Marduk and Nabu's, cf. Porada 1947, fig. 3), occupy the upper part of the field. The seal is made in the modelled style and the hunting scene, popular in Assyrian glyptic, is devoid of mythical figures. Similar scenes may contain a composite beast, like the parallel from Porada cited below, or a divine hunter. Similar scenes, executed in the modelled style, are known in Assyrian and Babylonian glyptic of the ninth–seventh centuries (cf. Porada 1947, 158–159 and fig. 24). As our composition does not contain exclusively–Babylonian elements (see the next seal), it may be regarded as Assyrian. An almost exact parallel can be seen in Moortgat 1940 (no. 747), in an Assyrian seal of unknown provenance from the eighth–seventh centuries.

The inscription, perhaps running from left to right judging from the *gim* and *ras*, reads *yf<sup>c</sup>brygr*, two Arab personal names with Aramaic *br* instead of the expected Arabic *bn* (Garbini 1976, 170–171). On the identification of *fa*, see section 3.4.1. The *gim* is of South Arabian shape.

### Seal from the ex-Moore Collection (figure 23)

Carnelian cylinder seal, 24 x 10 mm

Metropolitan Museum of Art, New York, L55.49.  
80 (on loan from the Moore Collection)

12. Information kindly provided by Professor O. Keel (letter of 7 September 1989).

Collated from MMA photo of the impression

Bibliography: Eisen 1940, no. 97; Gelb, *apud* Eisen 1940, 83; Bron 1977, 239; 1985, 340

Cut in the modelled style of the eighth-seventh centuries, a winged "genius" holds a rampant bull(?) by the forepaw with his left hand, and is about to strike him with a scimitar held in the other. Porada (1947, 148 and fig. 2; 1948, 92) regarded scenes like this one as possibly Babylonian, and a very close parallel to our seal is her 1948, no. 766. Indeed, the "feathered" cap, not to be confused with the feathered cylindrical headdress, is considered Babylonian (see the **Erlenmeyer stamp seal**), as are the equally-long wings of the genius.

The inscription, that could be either South or North Arabian, reads *mn*l from right to left, obviously a personal name but not easy to interpret; see Bron 1977, 239. Perhaps this stands for original *mn'l*, like *frblt* for *fr'blt* on **Ward 1209**. See Harding 1971, 569, for both names. The triangles of the *mim*, that do not touch, could have been considered early in the Sabaeen monumental inscriptions, but on a small object such as a seal they are likely to be incidental.

### **Ward seal 1208** (figures 24, 25)

Upper half of a lapis lazuli cylinder seal, 18 mm in diameter

Pierpont Morgan Library, New York

Collated from Porada 1948, pl. CXV:762

Bibliography: Ward 1910, no. 1208; Porada 1948, no. 762

Ward (1910, p. xxviii) reported that the seal was in the Metropolitan Museum, but it belongs in fact to the Pierpont Morgan collection (Porada 1948). Ward may have confused it with **no. 1211** (see below).

The late contest scenes in the modelled style, in which the hero subdues the beast(s) with his bare hands (cf. Porada 1948, 92), date from the late eighth or seventh centuries. They appear on both Neo-Assyrian and Neo-Babylonian seals. Our

fragmentary scene consists of a hero and two rampant lions which may have been winged, and a crested bird behind (see Collon 1987, no. 656, for a dog in the same role as our bird). The hero's headdress, analogous to that of the sphinx on the **Erlenmeyer stamp seal** discussed below and to another on a cylinder seal (Porada 1948, no. 761), indicates Neo-Babylonian influence (cf. Porada 1948, 92; Collon 1987, 83). The **Walters Art Gallery seal** discussed below is very similar.

The stances of the letters show that the text runs from right to left: *ltrtqd kxxmshly* or *kxxmshlyltrtqd*. The rolling, figs. 24, 25, displays the scene correctly, but the inscription should be "cut" at the **word divider** or the head of the hero. The **word divider** is necessary in both cases, as the inscription spans the entire circumference of the seal. The form of ***dal*** is more characteristic of North Arabian. The letter that I think might be a (North Arabian) ***ha*** was read as ***shin*** by Ward and as ***ś*** by Rosenthal (in Porada 1948, 180). If the text, most probably "X [son of] Y", reads *ltrtqd* <bn/br> *kxxmshly*, "belonging to *ltrtqd*, [son of] *kxxmshly*" could have been meant (see section 3.3.8 for the employment of "belonging to" on our seals). If so, the first name is perhaps from *rqd* (Harding 1971, 285, 541), while the second could be compounded with *hl/hly* (*ibid.*, 225, 228).

### Seal in the Walters Art Gallery (figure 26)

Chalcedony cylinder seal, 15 x 8.5 mm

Walters Art Gallery, Baltimore, 42.827

Collated from WAG photograph of the impression

Bibliography: Gordon 1939, 29–30; Garbini 1976, 170–172

The seal contains a contest scene (a hero and two different composite beasts), fairly similar to **Ward seal 1208**; see the discussion of that seal and Porada 1948, no. 753.

The inscription, which judging from ***ra*** may run from right to left, reads *frby*, and the shapes of the letters make possible a South- as well as a North Arabian origin. Gordon

read *crby* or *mrby*, an Arab personal name. Garbini rightly observed that the disputed letter is not *cayn*, basing his opinion on the Erlenmeyer cylinder seal (see above), where this letter appears alongside the usual round *cayn*, and also rejected *mim*. He read *frby* and tried to interpret it as a Babylonian personal name (see also section 3.4.1).

### Erlenmeyer stamp seal (figures 27, 28)

Scaraboid, 24 x 18 x 9 mm; material not reported

Allegedly from Luristan

Ex-Erlenmeyer collection (see Erlenmeyer cylinder seal, above)

Collated from Erlenmeyer and Erlenmeyer 1965, pl. XI:63, 67a

Bibliography: Erlenmeyer and Erlenmeyer 1965, esp. 14–16; Garbini 1976, 169–170

Cut in the modelled style and dating to the late eighth–seventh centuries, the seal shows a winged sphinx with plumed cap and a stylized lily, cf. Wiseman 1959?, no. 71; Wiseman's example is a cylinder seal with typical Babylonian characteristics—the "feathered" cap of the sphinx, doubling of figures, and the four wings of equal length (in Assyrian art the upper wings are usually shorter, cf. Porada 1947, 149). The lily, sometimes called "cactus" (Porada 1947, 151 and Collon 1987, 83) is also Babylonian in inspiration. Few elements, often just one, of a cylinder–seal scene are shown on the smaller surface of a stamp seal.

The inscription, that seems to run from left to right on the impression, reads *cgly*. For a similar Arab name, *cgl(m)*, see Harding 1971, 408 (and it appears, of course, in the Northwest Semitic repertoire); for personal names ending in *-y*, see Bron 1977, 239. The *gim* is of North Arabian type. Garbini read my *lam* differently since a scar, one of several on the seal, renders the letter *rho*-shaped. But it is not clear why he chose *dal* (see the discussion of that letter in section 3.4.1).



**Seal in the Bibliothèque Nationale, Paris (figure 29)**

Grey chalcedony scaraboid, 18 x 15 x 10 mm

Bibliothèque Nationale, Paris, Cabinet des Médailles M 2803 (inv. 1406/8)

Collated from BN photographs and colour slide of the seal and its impression

Bibliography: Cohen 1934, 51–54; Winnett 1937, 49–50; Bron 1985, 341

The seal, cut in the drilled style with some employment of modelling, belongs to the (late?) eighth–seventh centuries. It shows a mythical figure, Assyrian, judging by the length of the wings, that holds a flower or bunch of pomegranates pointing downwards in its left hand, and a "sprinkler" in its right, in the same gesture as the demons on **Ward seal 1209**. Derived from monumental art, demons with pomegranates in one hand (and various things in the other) can be found in Assyrian glyptic. On a cylinder seal in Philadelphia, Legrain 1925, no. 591 (= Ward 1910, no. 696), two genii that flank a tree of life hold such a bunch, and a cylinder seal in the British Museum, Collon 1987, no. 347, depicts a similar scene. Our seal contains one component of such a composition.

The seal bears what, because of the *gim*, seems to be a North Arabian inscription, *sg'dd*, certainly a personal name, perhaps an Aramean one (see Bron 1985, 341). **Vienna seal 1247** (see below) bears a similar name.

**Brussels seal (figure 30)**

Agate cylinder seal, 23 x 12 mm

Musées Royaux, Brussels, no. 1464

Collated from Musées Royaux photograph of seal and impression

Bibliography: Speleers 1943, 128 (no. 1464), 187; Bron 1977, 238–239

A deity, most probably Ishtar, with cylindrical headdress and two crossed quivers on her back, stands on the left. A woman

worshipper with long covered hair presents her with a metal stand and a goblet. She is accompanied by an assistant with "feathered" cap (see the **Erlenmeyer stamp seal**) who is gesturing with parallel hands. The seal is carved in the modelled style.

Women worshippers do not appear very often on Neo-Imperial seals. Ishtar facing a female adorer is depicted on a well known Assyrian cylinder seal in the British Museum (Collon 1987, 167 and no. 773). Much closer to our seal in the stout rendering of the figures is a modelled-style Neo-Babylonian seal, also in the British Museum (*ibid.*, no. 774). It shows the goddess in a different pose, facing a male worshipper who gestures with parallel hands. This gesture is the rule in Babylonian glyptic, for instance on the sixth-fifth-century seals that show a worshipper facing symbols. It appears also on Assyro-Babylonian seals of the late eighth and seventh century, such as the **Anah seal** (see above) and Porada 1948, nos. 771 and 773. Porada, 1948, 95, labelled this "gesturing with one hand only", but as the figures are carved in profile, it is usually one hand that is visible; occasionally both can be seen (Collon 1987, nos. 676, 774). The shoulders of the figures, unnaturally bent backwards, are also typical of Babylonian glyptic of the Neo-Babylonian and Achaemenid periods, while the dress of the male worshipper finds its best parallels in Assyria (Porada 1948, 94).

On the occurrence of two worshippers in Assyrian glyptic see Tadmor & Tadmor 1967, 75, 77-78 (see also **Ward seal 1211**), though they dealt with men only; the pairing of two female worshippers (or a male and a female) is unusual. Details of our female worshipper, such as the covered hair, as well as the offering of a goblet and metal stand,<sup>13</sup> are also

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13. What looks like a bowlless metal stand is depicted on a Urartian seal in the Newell collection (von der Osten 1934, no. 445; Seidl 1979, 145), but it is carried by the divine figure, not the worshipper. The dot between its legs could represent the hemispherical projection on Urartian thymiateria (like on the example from Toprakkale in Hamburg, Lehmann-Haupt 1907, fig. 63), but the forked "rays" that emanate from the god's body share the same device. It should

uncommon in Babylonian glyptic. (The metal stand for Nusku's lamp, Porada 1948, nos. 795, 796, 798 etc. etc. is a different matter.) The number of unfamiliar features indicates that the seal may have been cut in one of the neighbouring countries. The Assyrian subject and composition, combined with the Babylonian "touch" evident in many details, make a dating in the seventh century (or perhaps the late eighth) likely.

Bron (1977, 239) corrected Speleers's *krty* to *kfty*, and since no Arab meaning came to mind, he thought of a Babylonian personal name like *kupputu* (Harding, 1971, 501, has one occurrence of *kfty*, in Safaitic). But the stances of the letters could indicate a sinistro-dextral reading, *ytfk*.

#### Ward seal 1211 (figures 31, 32)

Carnelian cylinder seal, 18 x 7 mm

Lost(?)

Collated from Ward 1909, pl. XXXV:269

Bibliography: Ward 1909, no. 269; 1910, no. 1211;  
Albright 1952, note 12; Garbini 1976, 171

When Ward published this seal, it was attributed to the Pierpont Morgan collection, but in the 1940s, when Porada prepared the collection's catalogue, it was not there (Porada 1948, 181, 183). I thought perhaps Ward confused it with **no. 1208** (see above), but our seal is now definitely not in the Metropolitan Museum (letter from Barbara A. Porter of 31 December 1985).

The rather carelessly cut seal contains three very similar figures flanking the legend, all gesturing with both hands. In the field are a winged disk, six-pointed star, dagger and

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be noted that the gesturing with parallel hands is known in Urartian art too (on a medallion and a pectoral from Toprakkale in Berlin, Seibert 1973, fig. 64; on a pyxis from Karmir Blur in Yerevan, Piotrovski 1969, fig. 112), though most probably independent of Babylonian influence. The Brussels seal is obviously not Urartian.

an unidentified object. An adoration scene of two bearded men before a deity is the obvious interpretation, but apart from a slightly different gesture of the hands, the righthand figure, devoid of attributes, is very similar to the other two. Unless one ascribes this to the negligent, perhaps provincial cutting, that figure may be a worshipper too. For two worshippers, bearded or shaven, see Tadmor & Tadmor 1967, 75, 77–78 and the **Brussels seal**. The Tadmors discussed two shaven worshippers or a bearded and a shaven one, but not two bearded ones, and certainly not three. The rendering and layout of the scene in Porada 1948, no. 715, is very similar, and in that seal all three figures are worshippers, flanking a bull(?) on a pedestal. If the scene on our seal is to be similarly interpreted, the winged disk, judging by its size, is definitely not the object of worship. The possibility that the seal had been reworked, the text replacing a long and narrow divine symbol or sacred tree, cannot be ruled out; in fact this particular area on the seal looks a little deeper in the photograph, and it is unfortunate that the original cannot be examined. It is certainly not the name—which is definitely not a divine name (see below)—that was worshipped. The adoration of the divine name, in addition to the divinity itself and its symbol(s), may have been practised in the West Semitic world (see Keel 1980, 279, 296; Bordreuil 1986, no. 60), and, of course, in Egypt, where the royal name was included in the same category.

The best parallels for the rendering of the heads and the clothing are to be found in the late drilled style (Porada 1948, nos. 705–715, 804–807), current mainly in Assyrian- and Babylonian-style stamp seals of the seventh and sixth centuries, and in late Assyrian cylinder seals. The winged disk and gesture of the hands (see the **Anah seal**, above) could favour an Assyrian origin, and hence a seventh-century date, but this is by no means certain.

If dextro-sinistral, the text would read 'dlbš, while Albright read it from left to right, šbld', interpreting this as a Babylonian personal name. Unfortunately the direction is unknown since the *lam* and *shin* face in opposite directions.

The *alif* is of a North Arabian shape and the *dal* triangular.<sup>14</sup>

**Vienna seal 1247 (figure 33)<sup>15</sup>**

Barrel-shaped stamp seal, drilled lengthwise, of yellowish brown chalcedony, height 32 mm, diameter 19–21 mm

Was in the Hofmuseum from at least 1821

Vienna, Kunsthistorisches Museum Sem. 1247

Collated from the original and its impression

Bibliography: Müller 1889, 20; not in Müller 1899; *RES* 2688; Garbini 1976, 173; Bron 1985, esp. 340–341, with earlier references

The barrel shape is not very common; Collon (1987, 93, 102) remarked that while a tendency to become convex may be noticed in cylinder seals since the ninth century (*op. cit.*, 76 and no. 340; also Delaporte 1920, no. A. 713), barrel-shaped stamp seals, usually made of chalcedony (like our seal) or agate, are known mainly from the Persian Period. And indeed, some of the late-fifth-century Murashu documents (see below) seem to have been impressed with seals of the same shape. However, if the convex cylinder seals inspired their production, barrel-shaped stamp seals could be earlier; moreover, they could have had a second source, namely Mesopotamian stamp seals also engraved on the side, that began to appear in the eighth century. (The "resurrection" of the

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14. Inscriptions thought to be South Semitic appear on two other seals published by Ward. On Ward 1910, No. 1210, there is a text with three letters, which is not clear. No. 1212 is a thirteenth-century Cypriot seal, with a Cypro-Minoan inscription (Kenna 1967, 568 and fig. 24).

15. Dr Erika Bleibtreu of the Oriental Institute of the University of Vienna kindly sent me an impression, from which two views in fig. 33 were taken (with the permission of the Kunsthistorisches Museum), and gave me much information about the seal, part of which is included here.

stamp seal in Mesopotamia is usually attributed to Sargon's reign, cf. Collon 1987, 75, 77, and Buchanan & Moorey 1988, 52, but this refers rather to dating its replacement of the cylinder seal; the use of stamp seals for Aramaic papyri in the empire may have started earlier in the eighth century.)

A barrel- (or rather flattened barrel) shaped seal made of opaque, banded stone was found, not *in situ*, at Tel Dor. It was illustrated and briefly mentioned by Stern (1987, 69-70) and labelled "Assyrian"<sup>16</sup> It belongs to the late drilled class with flat modelling added. A female(?) deity in a nimbus, with cylindrical headdress and both arms raised (if female, most probably Ishtar, cf. Porada 1948, 81, 84, 97 and no. 791; U. Seidl, *RLA* 5, 88), faces a worshipper holding an unidentified object; both wear ankle-long garments; a crescent occupies the upper part of the field. The deity in a nimbus is of Assyrian origin, but it appears in the late-eighth-seventh-century "Assyro-Babylonian" glyptic, for instance in a stamp seal in the Bibliothèque Nationale, Delaporte 1910, no. 525. The Dor seal should be dated to the seventh century, or, less likely, the eighth. Acquired in Lebanon, a Moabite banded sardonix seal, also in the Bibliothèque Nationale (Bordreuil 1986, no. 63),<sup>17</sup> is of a similar shape, and the engraved surface is flattened. Bordreuil dated it to the second half of the eighth century (see also the discussion of Syro-Transjordanian-style seals in section 3.3.8). These two seals provide the earliest well-dated examples of the barrel shape.

The modelled-style Vienna seal depicts a beardless male facing left. His right forearm is raised and the left is pointing down, in a Babylonian, rather than Assyrian, gesture. He is clad in a long fringed robe of Babylonian appearance and a short sleeved "jacket", also fringed, and wears a high conical hat with streamer, a priest's headgear (Bleibtreu). The streamer looks as if attached to the brim, but it may start at the top, merging with the side of the hat.

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16. Collated on 21 September 1989 at the Kibbutz Nahsholim museum where it is exhibited.

17. Cabinet des Médailles M 2886 (inv. 1058/4).

There exist passable fifth-century Babylonian comparisons to our figure and its headgear in impressions on the Murashu family documents from Nippur (Legrain 1925, nos. 962–964; Delaporte 1920, no. A. 798 on pl. 120:3a. Zettler, 1979, 261, mentioned them only in passing). On these impressions, whose seals continued the Neo-Babylonian glyptic tradition, the figure wears a conical hat similar to ours (albeit shorter), with streamer. But he is not empty-handed, and two or three symbols are scattered in the field. However, in other Murashu impressions (*ibid.*, nos. 956–958) the man alone is depicted. His attitude is similar to that of our figure, but he wears a different headdress; the man in no. 956 is bearded.

A similar type of hat is found earlier: On the Beersheba votive cylinder (Beck 1973) the worshipper wears a conical hat with a hint of a streamer. Though the composition originates in Assyria, the inspiration for the legend and many details of the scene of this Middle Euphrates cylinder is mainly Babylonian. Beersheba was destroyed in an Assyrian campaign, either that of Sennacherib in 701 (*Beer-Sheba* I, 107), or one of the years 720–712 (Na'aman 1979, 74–75). A striking parallel to our figure and its headdress is found in a priest of Ninurta depicted on a cylinder seal from Nimrud (Moortgat–Correns 1988, in press at the time of writing, January 1990). I owe this reference, which came in too late to be discussed in detail, to Dr Bleibtreu.

The king on Babylonian kudurru of the ninth–seventh centuries (Seidl 1989, nos. 96, 98, 99, 105, 107, and 110) wears a conical headdress. Though two of their ten examples on kudurru and other monuments are non-royal, Brinkman and Dalley (1988, 79, 93–94) regarded this hat as the royal Babylonian crown of the early first millennium (replacing the cylindrical crown with feathered top). Bleibtreu argued for a priest's headdress, and, quoting Porada (pers. comm.), remarked that it is in his priestly function that the king (bearded, naturally) is depicted on the kudurru. Other conical hats are worn by Aššur-nādin-šumi (Collon 1987, no. 555) and Šamaš-šum-ukin (Barnett 1976, pl. XXXV) (Bleibtreu).<sup>18</sup>

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18. The conical helmet of the Assyrian army is a different matter. Yet another conical hat is worn by Rusa II

There is no question that the Vienna seal is Babylonian in style, but its date, either in the Neo-Babylonian or Persian period (cf. Porada 1948, 96) is uncertain. We have seen that the barrel shape and headdress are no obstacles to a Neo-Babylonian date, and the full chronological range could span the time between the late eighth and early fifth centuries. The soon-to-be-published comparison from Nimrud shows that the Neo-Imperial parallels are not exhausted, and they may ultimately favour a date about the seventh century.

The inscription—North Arabian judging from the *alif*, *gim* and *ha*—reads 'lyhbśg'dhd, a personal name, 'lyhb <bn/br> śg'dhd or 'lyh b<n/r> śg'dhd (Bron 1985, 339–341). It is included in our discussion as long as it is not shown to definitely belong to the fifth century. At any rate, should it be found to date to the Persian Period, our seal will stand out as the latest Mesopotamian-style seal with a South Semitic inscription (see section 3.3.8).

### 3.3.5 Inscriptions from Syria–Palestine

#### Sherds 1, 2 and 3 from the City of David, Jerusalem (figure 34:1–3)

Cooking pot shoulder fragment, 14 x 10 cm;  
Jug(?) fragment, 7.5 x 4 cm; storage jar fragment, about 10 cm long, with stump of handle

Area G, Locus 913, Stratum 10B (late First Temple period); Area E1, Locus 601, Stratum 10 (end of First Temple period); Area G, surface

IAA 86–425, 86–424 and 86–422

Collated from the originals

Bibliography: Shiloh 1987; Sass forthcoming 1

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on cylinder-seal impressions from Bastam and elsewhere (detailed discussion by Seidl 1979 and 1988, type B1–3). On these impressions the king is proceeding in front of his parasol bearer, imitating the scene on a stamp seal that Seidl (1988, 150) takes to be a second type of the Assyrian royal seal.



The sherds date, stratigraphically or typologically, to about 600 B.C. If South Semitic, the script could be South as well as North Arabian.

Sherd 1 is certainly a South Semitic monogram, perhaps reading *hll* (Höfner's suggestion, *apud* Shiloh 1987, 10). If not a potter's mark, Sherd 3 may have a South Semitic malformed *waw* or monogram (*dd* according to Höfner), or a Greek *phi*. Sherd 2 could read South Semitic *|hly|* or Greek *...chi/psi-lambda-rho...* For a fuller discussion see Sass forthcoming 1.

### 3.3.6 Seals of Syro-Transjordanian style

The six seals of this group are characterized by their similarity to Northwest Semitic style seals, mainly those with Aramaic, Ammonite and Moabite names (see section 3.3.8). All are tripartite in layout.

#### Seal in Munich (figure 35)

Agate scaraboid, 24 x 19 x 12 mm

Provenance unknown; bought in Istanbul

Staatliche Münzsammlung, Munich, A. 1351

Collated from an impression, and from Brandt 1968, pl. 14:118A and Bron 1977, pl. I:a

Bibliography: Brandt 1968, no. 118; Bron 1977, 237; 1988, 440

The seal was published as Greek by Mrs Brandt, who dated it to the seventh–sixth centuries. Bron first discussed it briefly from an impression in Geneva, and in his 1988 note supplied additional data.

The rather carelessly engraved seal is made of hard-stone, and much use was made of drilling. The three registers contain, from top to bottom, two upright horned quadrupeds flanking a tree of life of Assyrian appearance, the inscription between two lines, and a charioteer and hunter in a horse-drawn chariot with eight-spoked wheels. The branchlike image behind may in fact be the poorly-rendered animal

speared from the chariot, a motif borrowed from Assyrian art, as, for instance, on Ashurbanipal's reliefs in the British Museum (see also the next seal). The scene, style, technique and material combined indicate that the seal could have been commissioned in the eighth-seventh centuries (or perhaps as early as the ninth) from an artist working in Syria or one of the Transjordanian kingdoms; whether such seals were being produced in northwestern Arabia itself we do not know, but the possibility cannot be ruled out (see also section 3.3.8).

The inscription runs from right to left (on the impression) and contains six letters, probably South Semitic *ybhr'l* (Bron 1988, 441), a well-known personal name. True, this legend is not as unequivocal as most of its counterparts on the other seals discussed here. The *rho*-shaped letter, interpreted as *ya*, is unusual (see section 3.4.1) and Mrs Brandt was not totally off-target when she considered the letters to be Greek, *rho-pi-chi/psi-?-?-lambda* (City of David sherd 2 is another text with a *rho*-shaped letter that could be either Greek or South Semitic; cf. section 3.3.5 and Sass forthcoming 1). Inspired by oriental glyptic, tripartite seals are not unknown, if rare, in the Greek world. On the other hand, the same layout is shared by all other five known seals of Northwest Semitic style and South Semitic legends. Clearly, the legend makes little sense as a Greek personal name and Mrs Brandt indeed made no attempt to interpret it. A scar, running lengthwise across the surface of the seal, partly obliterates the fourth and fifth letters. Nevertheless, the possibility that this is a South Semitic inscription is revealed in what remains of the fifth letter: similar to the second but only two thirds high, it can hardly be anything but the "pedestal" of an *alif*. The North Arabian appearance of *ha* would indicate the correct, North Arabian, reconstruction of this damaged *alif*—the upper part of the letter, that on the impressions and photographs at my disposal makes it seem to be of the South Arabian shape, could in fact be part of the scar. The reading of the fourth letter as *ra* is likewise not certain, only the best possibility at present. And if correct, the ensuing personal name settles the reading of the right-hand letter as *ya*, otherwise perhaps interpretable as a malformed *dal* or *fa*.

Admittedly, this does not constitute the strongest of cases for interpreting the legend as South Semitic, nor for the reading of the personal name. However, the letter identified as *alif*, as well as the similarity of our seal to the next one, tip the scales, I think, in favour of a North Arabian, rather than Greek attribution.

### Seal in the Musée du Louvre (figure 36)

Agate scaraboid, 18 x 16 x 12 mm

Provenance unknown

Musée du Louvre, AO 2227

Collated from a Louvre photograph of the impression

Bibliography: Delaporte 1920 & 1923, no. A. 1148;  
Bron 1977, 238

Seal similar to, and contemporary with the preceding, and certainly not produced "dans la zone de contact entre la civilisation mésopotamienne et les populations de l'Arabie" (Bron). Note the four-spoked wheel, three space fillers, one in each register, and the "cut-style" rendering of the wing of the right-hand sphinx (in the impression).

The impression reads *yf<sup>c</sup>m* from right to left. For the name see Bron 1977, 238; *yf<sup>c</sup>* is attested on the Erlenmeyer cylinder seal (see section 3.3.4). The shape of the *mim*, with its "merging" triangles, would be considered later than the *mim*, which has two distinct triangles, on the earliest South Arabian monumental inscriptions. However, the deviation from the expected shape on our seal was probably a result of careless cutting. The *fa* is of the lentoid shape, intermediate between the early, D-shaped, and the "classical", rhomboid letter. It is more difficult to cut than either of the other two, and is therefore unlikely to be incidental. Iconographically, the seal belongs to the eighth century or thereabouts, that is to say the ninth and seventh cannot be ruled out. A glance at the superb x7.5 enlargement sent by the Musée du Louvre rules out a recutting of the central register. It follows that the lentoid *fa* overlaps chronologically with the D-shaped letter.

**Seal at Yale University (figure 37)**

Oval bifacial plaque seal of black stone, 18 x 16  
x 7 mm

Provenance unknown

Yale Babylonian collection NCBS 886

Collated from Yale photographs and colour  
slides

Bibliography: Bron 1979

The obverse is similar in layout and style to the seals that follow. It is divided into three registers, of which the middle one is occupied by the inscription, and each of the others contains a summarily rendered winged disk. The schematic winged disk is a popular motif on Transjordanian seals of the late Iron Age, such as Bordreuil 1986, no. 63. The reverse shows, apart from the inscription, a saddled horse with a bell (cf. Collon 1987, 86 and nos. 415–416) hanging from its neck, a dog underneath and three space fillers(?).

Northwest Semitic bifacial seals naming two owners, the most likely prototypes of our seal, could have passed from father to son, though other explanations are possible. One has to differentiate between scaraboid seals with the later inscription cut on the domed back, and plaques with two flat, or slightly convex surfaces. (Compare the anepigraphic seals in Buchanan & Moorey 1988, nos. 323, 352 etc. Some of the latter could have started their career as domed seals, reworked to receive the later inscription.) In the case of the Yale seal, lacking a clear-cut patronymic, we cannot be sure (cf. Avigad 1975, esp. 101–102, on the Hebrew seal naming Zadok son of Micah on one side, and [Ze]chariah, the priest of Dor, on the other). Of another kind are bifacial seals naming the same owner in different functions, such as the Hebrew seal with *šbnyw* <sup>c</sup>*bd* <sup>c</sup>*zyw* on one side, and only *šbnyw* on the other (Bordreuil 1986, no. 41, esp. note 5).

The longer text, *hmmhw*, is written from right to left, perhaps implying that the shorter text on the other side—*l<sup>c</sup>t*—runs in the same direction. The names do not lend themselves to easy interpretation. For names similar to *hmmhw* see Bron 1979 and Harding 1971, 203. Thamudic and

Safaitic have <sup>c</sup>t (Harding 1971, 404), and "belonging to <sup>c</sup>t" is a possibility (see section 3.3.8), but if <sup>t</sup>l is to be read, a name from <sup>c</sup>l (Harding 1971, 429) should not be ruled out. The letters of the longer text are "classically" South Arabian, while those of the shorter inscription are of inferior quality, though not necessarily archaic. I have no ready explanation for the stance of *lam* nor for the broad *taw*, unless the shorter text is Northwest Semitic.

### Vienna seal 1145 (figure 38)

Scaraboid of light brown translucent stone  
(chalcedony? agate?), ? x ? x 21 mm

Provenance unknown

Vienna, Kunsthistorisches Museum Sem. 1145  
(previously Hofmuseum 62)

Collated from Müller 1899, pl. XIII:26

Bibliography: Müller 1899, no. 62; *CIH* 821

Tripartite stamp seal like the preceding one, with two bulls and inscription, the latter occupying two lines. Much use was made of the drill in rendering the animals. Fairly close comparisons to the upper animal are the Ammonite seals Bordreuil 1986, nos. 73 and 74 and Hestrin and Dayagi-Mendels 1979, no. 108. The iconography, very similar to that of the other tripartite seals discussed here, makes a late-Iron Age dating likely.

The inscription reads 'bymxx/hdmm. As 'bym.<sup>c</sup>hdmm<sup>19</sup> makes little sense, the two problematic signs are probably not a **word divider** and an <sup>c</sup>ayn; perhaps they do not belong to the text at all. Could 'bym <bn/br?> hdmm and two space fillers have been meant? (Cf. Harding 1971, 17-18 for 'by/'bym, and 181 for hdm/hdmm.)

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19. 'byd<sup>c</sup> in *CIH* is a mistake.

**Berlin seal 2620** (figure 39)

Silver seal, 14 x 10 x ? mm

Provenance unknown

Staatliche Museen, Berlin, VA 2620, VAN 11856

Collated from Museum photograph and colour slide

Bibliography: Mordtmann 1893, 51; *CIH* 804; not in Jakob-Rost 1975; Bron 1979, 135

Tripartite seal with a running bull and recumbent lion in tête bêche arrangement that frame the text. If comparable to the other seals discussed here and their Northwest Semitic prototypes, a dating in the late Iron Age is possible, but a later date is not to be ruled out: though the script looks archaic, South Semitic seals with very similar iconography are known from the following centuries too (cf. a gold signet ring with younger script, Daum 1987, 92 [= Louvre AO 11208]). The material, silver, is uncommon, but compare Hestrin & Dayagi-Mendels 1979, no 88, a Hebrew seal. The name is blurred; Mordtmann suggested reading *lhg<sup>c</sup>(?)* from left to right (on the impression), but if the photograph is not misleading, *lhy<sup>c</sup>*, as in *CIH*, is more plausible. However, as the first and third letters from the left point in opposing directions, the text could read from right to left—*<sup>c</sup>yh<sup>l</sup>*. Whether dextro-sinistral or sinistro-dextral, the names seem to be either unique or misread. If the name begins in *lam*, the letter may or may not recall the possessive *lamed* on Northwest Semitic seals. This phenomenon is otherwise extremely rare in, if not absent from, South Semitic seals (see section 3.3.8).

**Berlin seal 2622** (figure 40)

Conical seal of white stone, 14 x 11 x ? mm

Provenance unknown

Staatliche Museen, Berlin, VA 2622, VAN 11855

Collated from Museum photograph and colour slide

Bibliography: Mordtmann 1893, 52; *RES* 3418; not in Jakob-Rost 1975; Bron 1979, 135

Worn tripartite seal with a stylized winged disk, similar to the one on the *Yale seal*, and running quadruped framing the text.<sup>20</sup> The iconography justifies a date in the late Iron Age. The beautiful letters may be compared to the obverse of the *Yale seal*. The inscription runs from left to right and though *ha* is nearly worn away, enough remains to confirm Mordtmann's *hywm*. This is a well known personal name, cf. Harding 1971, 211–212.

### 3.3.7 Miscellaneous

In this section are included a South Semitic seal that is probably later than the Iron Age, and inscriptions that were erroneously attributed to our group.

#### Tell Deir <sup>c</sup>Alla tablets and Kamid el-Loz sherds

Several scholars have considered the Tell Deir <sup>c</sup>Alla inscriptions to be South or North Arabian; their date, at the end of the Late Bronze Age, has been used to support an early date of the South Semitic script (see some of the references in Weippert 1966). A certain formal similarity to South and North Arabian letters is visible in some of the Deir <sup>c</sup>Alla signs, while others bear no such resemblance. For the Kamid el-Loz incised marks see also note 35 and Sass 1988, 99.

#### Impression in the Ecole Biblique, Jerusalem (figure 41)

Modern impression of a stamp seal, dimensions not reported

Provenance of seal unknown

20. Similar motifs appear on an anepigraphic seal in Vienna, Kunsthistorisches Museum Sem. 80 (previously Hofmuseum 80), Müller 1899, pl. XIII:22 and Bron 1979, 135. For this reason it was classified as Arabian by Müller, although it may be regarded as Transjordanian as well.

Musée de l'Ecole Biblique, Jerusalem; whereabouts of seal not reported

Collated from Bron 1977, pl. I:c

Bibliography: Bron 1977, 238

The layout of the inscription is similar to that of Northwest Semitic, mainly Hebrew, seals of the seventh–fourth centuries. As Bron noted, the *nuns* indicate a boustrophedon reading; he read *slmn/bḥḏn*, but it is definitely *slmn/bḥfn*, *slmn b<n> ḥfn*. For *slmn* see Bron, *loc. cit.*; for *ḥfn(m)* see Harding 1971, 195. The forked *ḥa* and especially the *nun* with obtuse angles have an archaic appearance, possibly voided by the rhomboid *fa* (why Bron opted for *dad* I do not know). The seal may well be beyond the chronological scope of our chapter and is therefore excluded from the palaeographical discussion.<sup>21</sup>

### Queen Alia Airport seal (figures 42, 43)

Oval bifacial plaque seal of green stone, 16 x 13 x 2.5 mm

Found in 1978 in the Jordan Department of Antiquities excavation in Tomb 20 of the Roman Period cemetery at Queen Alia International Airport, 25 km south of Amman, field no. 20/53/44

Amman Museum J.13544

Collated from Ibrahim, Gordon a.o. 1987, pl. XXXVII:2

Bibliography: Ibrahim, Gordon a.o. 1987, *passim*; Knauf 1987

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21. Another seal of uncertain date with South Semitic inscription comes from el-Hasa in northeastern Saudi Arabia (Golding 1984, 166 and pl. 135B). It is a stamp seal, c. 15 x 10 x ? mm, of dark stone with a scorpion and the name *klbm*. The whereabouts of the seal were not reported, but an impression is kept in the Moesgaard Museum, Denmark.



Identified and deciphered by Knauf as early-first-millennium-B.C. South Semitic, this is in fact a Gnostic seal of the early first millennium A.D.; cf. Sass forthcoming 2.

### Ghrareh impression (figure 44)

Stamp-seal impression, 37 x 38 mm, on a sherd

Found in Hart's 1986 excavations at the Edomite site of Ghrareh, southern Jordan, in Area D

With the expedition?

Collated from Hart 1988, fig. 9

Bibliography: Hart 1988; Knauf 1988

In spite of considerable difficulties, Knauf insisted on treating the signs as South Semitic, dating to the lifetime of the late-Iron Age Edomite site at Ghrareh, probably because they could not have been read as Northwest Semitic; one suspects that an urge to make a palaeographical discovery may have played a role too (cf. Sass 1985). As with the **Queen Alia Airport seal**, Knauf chose not to address the nature of the impression and the type of seal with which it was made. Square South Arabian seals do exist, but they belong to a much later period. If a closer source of influence is sought, the squarish layout of the huge signs, completely filling the square frame, is not characteristic of contemporary Northwest Semitic glyptic: though square seals are known to have been produced in the early first millennium in that part of the world, they are rare, and the signs are, as a rule, smaller, the lines of script being separated by incised lines.<sup>22</sup> It is in Egyptian or Egyptianizing seals that our impression may find comparisons. Such seals, with meaningful texts or just amuletic hieroglyphs, exist in abundance in the Third Intermediate and Late Periods, and although no exact parallel comes to mind, Petrie 1925, nos. 581 and 671 are close enough.

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22. Eg. *En-Gedi*, pl. XXVI:3. Among the one hundred and fifteen stamp seals and impressions listed by Hestrin and Dayagi-Mendels (1979), for example, none has the shape of a square or squarish rectangle, though no. 17, an impression of a Hebrew seal, is in the shape of an elongated rectangle.

The Ghrareh impression was probably made with an Egyptian, or Egyptianizing, seal inscribed with meaningless hieroglyphs; whether it was chosen to embellish the vessel because of a certain formal similarity of the signs to South Semitic letters, we shall never know. A close comparison still lacking, the matter is not finally settled. But in order to convincingly interpret the awkward signs differently, an alternative *Sitz im Leben* for the seal will have to be pointed out first.

### 3.3.8 Summary and conclusions

The table that follows summarizes the data on the Proto-Arabic inscriptions (and those once thought to be Proto-Arabic); the date is given in brackets.

| Written<br>on<br>Provenance | Pottery                            | Stele | Rock<br>graf-<br>fito | Cylinder<br>seal | Stamp<br>seal |
|-----------------------------|------------------------------------|-------|-----------------------|------------------|---------------|
| <u>Arabia</u>               |                                    |       |                       |                  |               |
| Hajar<br>Bin Humeid         | Pithos<br>(10th-9th<br>centuries?) |       |                       |                  |               |
| Tell el-<br>Kheleife        | Jar (6th<br>century?)              |       |                       |                  |               |
| Marib,<br>Jamme 536         |                                    | 1 (?) |                       |                  |               |
| Jebel Awrad,<br>Jamme 863   |                                    |       | 1 (?)                 |                  |               |
| el-Hasa,<br>Jamme 1049      |                                    |       | 1 (?)                 |                  |               |

| Written<br>on<br>Provenance    | Pottery                                | Stele | Rock<br>graf-<br>fito | Cylinder<br>seal                     | Stamp<br>seal                |
|--------------------------------|--|-------|-----------------------|--------------------------------------|------------------------------|
| <u>Mesopotamia</u>             |  |       |                       |                                      |                              |
| Abu Salabih                    | Jar (?)                                |       |                       |                                      |                              |
| Ur                             | Label (?)                              |       |                       |                                      |                              |
| Ur                             | Bowl (?)                               |       |                       |                                      |                              |
| Ur                             | Brick (7th<br>century)                 |       |                       |                                      |                              |
| Uruk                           | Tablet (?)                             |       |                       |                                      |                              |
| Nippur                         | Tablet (?)                             |       |                       |                                      |                              |
| Unknown<br>(Meso-<br>potamia?) |  |       |                       | 9 (9th/8th-<br>7th/6th<br>centuries) | 3 (8th-<br>7th/5th<br>cent.) |
| Jerusalem,<br>City<br>of David | 1-3 sherds<br>(7th-early<br>6th cent.) |       |                       |                                      |                              |
| Unknown<br>(W. Asia)           |  |       |                       |                                      | 5-6 (8th-<br>6th cent.)      |

### Mesopotamian-style seals

Eleven of the twelve seals treated here most probably cluster in the eighth (mainly late eighth) and seventh centuries, though one of them might be as early as the ninth; one seal is thought to date to the sixth or fifth century, but the seventh cannot be ruled out. Assyrian and Babylonian iconography are almost equally represented, and the preponderance of the modelled "style" can be explained by its popularity in the period most seals belong to (Porada 1948, 72 etc.). The scene of stamp seals is listed in brackets in the following chart

because it is obviously only a part of the full scene that would have been depicted on cylinder seals.

| Seal                      | Date             | Style                      | Technique<br>("Style") | Scene<br>(stamp seals<br>in brackets) |
|---------------------------|------------------|----------------------------|------------------------|---------------------------------------|
| Cherkasky                 | (9th-?)<br>8th   | Peripheral<br>Assyrian     | Linear &<br>modelling  | Contest                               |
| Ward 1209                 | late<br>8th      | Assyrian                   | Drilled<br>(early)     | Worship                               |
| Anah                      | late<br>8th-7th  | Assyro-<br>Babylonian      | Modelled               | Worship                               |
| Erlenmeyer<br>cylinder    | late?<br>8th-7th | Assyrian                   | Modelled               | Contest                               |
| Moore                     | 8th-7th          | Babylonian                 | Modelled               | Contest                               |
| Ward 1208                 | late<br>8th-7th  | Assyro-<br>Babylonian      | Modelled               | Contest                               |
| Walters Art<br>Gallery    | late<br>8th-7th  | Assyro-<br>Babylonian      | Modelled               | Contest                               |
| Erlenmeyer<br>stamp       | late<br>8th-7th  | Babylonian                 | Modelled               | (Mythical<br>animal)                  |
| Bibliothèque<br>Nationale | (8th?)<br>7th    | Assyrian                   | Drilled &<br>modelling | (Mythical<br>figure)                  |
| Brussels                  | (8th?)<br>7th    | Peripheral?<br>Assyro-Bab. | Modelled               | Worship                               |
| Ward 1211                 | 7th              | Assyrian?                  | Drilled<br>(late)      | Worship                               |
| Vienna 1247               | 7th-5th          | Babylonian                 | Modelled               | (Wor-<br>shipper)                     |

Even though the legends of our seals are not part of the design,<sup>23</sup> the 11:1 (if not 12:0) majority of pre-sixth-century material constitutes a strong case in favour of the virtual contemporaneity of the seals and their legends. To still argue that most South Semitic texts may be Persian Period additions to our Neo-Imperial seals would probably be a misjudgement of the evidence, and I will mention this point again in section 3.4.1. Why would eleven, or perhaps twelve, older anepigraphic seals, but only a single contemporary one (or none at all), have been inscribed in the sixth or fifth century with South Semitic legends? In other words, almost all the seals fit into the eighth-seventh centuries, and this is the most likely date of their legends too. This is why I prefer the eighth-century option for the **Cherkasky seal**; iconographically it could belong to the ninth as well. But perhaps I have been over-prudent: though it still remains to be proved, nothing speaks in principle against the emergence of personal seals with South Semitic inscriptions already in the ninth century. Northwest Semitic personal seals also started as early (Cross 1962, note 12; Sass 1983, 175; 1988, 95; the scarcity of ninth-century seals with Arab names, and the total absence of tenth-century ones, reflects the situation of personal seals in Mesopotamia, Syria and Transjordan at the time; see also the end of this section)—certainly ideas moved as fast as people along the well-travelled Near Eastern trade routes of the early first millennium—and Pittman's ninth-century option for the **Cherkasky seal** may prove right after all.

I cannot deal here with the paucity, if not absence, of Mesopotamian-style material from the Persian Period, that is outside the scope of the present study. Suffice it to say that personal seals with South Semitic inscriptions are unlikely to have suddenly disappeared from the scene. Arabian glyptic by now probably replaced the Mesopotamian-style—or for that matter Achaemenid-style—seals (see below).

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23. Nevertheless, the space occupied by the legend on the **Anah** and **Brussels seals**, among others, may have been intentionally reserved.

### Syro-Transjordanian-style seals

The style of all six seals may be labelled, for want of a more suitable term, Syro-Transjordanian. That is to say they belong, iconographically, to the same class as the Northwest Semitic personal seals of the late Iron Age, but not to the Hebrew or Phoenician group; they find their best parallels among the seals with Aramean, Moabite and Ammonite script and names. To the best of my knowledge, the first treatise on early-first-millennium Aramean glyptic and its distribution is yet to be written (cf. Buchanan & Moorey 1988, 34). It would be premature, then, to classify as Aramean the style of seals, identifiable by way of their provenance, script or owner, or the blend of local layout, workmanship and motifs with Mesopotamian motifs.

Our six seals are tripartite, with the inscription, in one or two lines, framed by figurative registers of equal size. Such a layout is not uncommon in Northwest Semitic personal seals, perhaps mainly those with Aramaic and Transjordanian names; cf. Bordreuil 1986, no. 63 and Hestrin & Dayagi-Mendels 1979, nos. 98 and 105,<sup>24</sup> a Moabite and two Ammonite seals. In contrast to the Mesopotamian-style seals, the contemporaneity of the legends on the present group is self evident—special room was allocated to the text, and none of the central registers shows signs of reworking.<sup>25</sup> The texts can thus be safely dated to the eighth or seventh century<sup>26</sup> (save **Berlin seal 2620**, that is in doubt).

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24. No. 105 has a striking South Semitic parallel in Vienna, Müller 1899, pl. XIII:5 (*CIH* 817), a seal of an *ʿbd*, though, judging by the palaeography, the legend could be later than the seventh century.

25. Seals with a blank register reserved for the owner's name (e.g. Buchanan and Moorey 1988, no. 275) show that a customer could choose one of the seals in stock, and have his name inserted. It is theoretically possible that names were added to antique seals, but this, if it happened at all, must have been an exception.

26. An extension of the range into the ninth and sixth centuries is not impossible.

The corpus of Northwest Semitic-style seals with archaic South Semitic inscriptions is still too small to testify for (or against) the existence of late-Iron Age workshops catering to the Arab taste, but the shared stylistic features of our seals—the tripartite layout<sup>27</sup> and recurrence of the stylized winged disk and "drilled style" quadrupeds—do suggest such a possibility. This may also explain in part the popularity of the tripartite layout in later South Arabian glyptic (cf. Daum 1987, 92 [= Louvre AO 11208]; Mordtmann 1893, no. 2610), long after it had died out in its region of origin. The literature on late Iron Age Arabian-Transjordanian interconnections is vast; see most recently Israel 1989.

### Distribution of the early South Semitic scripts

We shall deal here only with inscriptions collated from the original or a photograph and having a stratigraphical or stylistic dating. Among the inscriptions of Arabian provenance, only the **Ḥajar Bin Ḥumeid pithos** is more or less securely dated, to the earlier part of the first millennium, and its script is obviously South Arabian. As to the texts that were found in Mesopotamia, again, only one, the **Ur Brick**, comes from a datable, seventh-century context, and its script is South Arabian. To these texts may be added the twelve seals of Mesopotamian style but of unknown provenance. The script of one of these is South Arabian, seven are North Arabian, and four contain only letters that have the same shape in all early South Semitic scripts. Only one, two or three texts from the area where Northwest Semitic languages were spoken come from a datable context—the **City of David sherds** that date to the late Iron Age. But six "Syro-Transjordanian"-style seals of unknown provenance are roughly contemporary. Four among them are written in a South Arabian script, one is North Arabian and one is indeterminate.

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27. Of the eight possible combinations of figurative and/or inscribed registers on tripartite seals, only one, namely figure-inscription-figure, is found on our examples, though this may be due to the small sample.

What becomes immediately evident is the large number of North Arabian inscriptions on the extant Mesopotamian-style seals. Though by no means certain due to the small sample, South Arabian script may turn out to predominate on Syro-Transjordanian-type seals. To put this into historical perspective is a task that cannot be undertaken in the present study.

### Names

It has been known for a long time that not all the names in the archaic South Semitic inscriptions from outside Arabia are Arab. Seals and other texts of that class obviously belonged either to "assimilated" Arabs or to Assyrians, Arameans etc. with contacts in Arabia.

It should be noted that, contrary to the Northwest Semitic custom, names preceded by *l* are rare in our seals: perhaps *ltrtqd* on Ward seal 1208, and with even less certainty *l<sup>c</sup>t* on the Yale seal and a practically illegible personal name on Berlin seal 2620. Most seals contain the owner's name only; five have the patronymic too, two of these contain just the two names, one has *bn*, another *br*, and one is with either *b* or no word for "son of". Bron (1977, 239) noted that a relatively large number of the names, possibly hypocoristics, end in *-y*. This could be so, but some of these may in fact read the other way round (e.g. *kfty/ytfk* on the Brussels seal), possibly beginning with the *y* of the imperfect, very common in Semitic names.

| Inscription and provenance | North/<br>South<br>Arabian | Name(s)               | Origin<br>of name |
|----------------------------|----------------------------|-----------------------|-------------------|
| <u>Arabia</u>              |                            |                       |                   |
| Hajar Bin<br>Ḥumeid pithos | S                          |                       |                   |
| <u>Mesopotamia</u>         |                            |                       |                   |
| Ur brick                   | S                          | <i>dnlyzbḡk/drlśn</i> | Babylonian?       |



| Inscription and provenance           | North/<br>South<br>Arabian | Name(s)   | Origin<br>of name                      |
|--------------------------------------|----------------------------|---|--|
| <u>Mesopotamian-<br/>style seals</u> |                            |   |  |
| Cherkasky seal                       | NS                         | <i>sry</i>  | Pan-Semitic                            |
| Ward 1209                            | N                          | <i>frblt</i>  | Assyrian                               |
| Anah Seal                            | N                          | <i>dbrk bn drd?</i>   | ?                                      |
| Erlenmeyer<br>cylinder seal          | S                          | <i>yf<sup>c</sup> br ygr</i>  | Arabic/Aramaic                         |
| Moore seal                           | NS                         | <i>mnI</i>  | ?                                      |
| Ward 1208                            | N                          | <i>ltrtkd &lt;bn/br&gt;<br/>kxxmshly?</i>                             | Arabic?                                |
| Walters Art<br>Gallery seal          | NS                         | <i>frby</i>   | Babylonian?                            |
| Erlenmeyer<br>stamp seal             | N                          | <i><sup>c</sup>gly</i>  | Arabic<br>(NW Semitic?)                |
| Bibliothèque<br>Nationale seal       | N                          | <i>sg'dd</i>  | Aramaic?                               |
| Brussels seal                        | NS                         | <i>kfty (ytfk?)</i>   | Babylonian?                            |
| Ward 1211                            | N                          | <i>šbld?</i>  | Babylonian?                            |
| Vienna 1247                          | N                          | <i>'lyhb &lt;bn/br&gt;<br/>śg'dhd or 'lyh<br/>b&lt;n/r&gt; śg'dhd</i> | Arabic/Aramaic<br>or<br>Hebrew/Aramaic |
| <u>Palestine</u>                     |                            |   |  |
| City<br>of David sherds              | NS?                        |   | Arabic?                                |

| Inscription and provenance              | North/<br>South<br>Arabian | Name(s)   | Origin<br>of name       |
|---|----------------------------|---|-------------------------|
| <u>Syro-Trans-jordanian-style seals</u> |                            |   |                         |
| Munich seal                             | N                          | <i>ybh<sup>r</sup>l?</i>                              | Arabic<br>(Pan-Semitic) |
| Louvre seal                             | NS                         | <i>yf<sup>c</sup>m</i>                                | Arabic                  |
| Yale seal                               | S                          | <i>hmmhw/l<sup>c</sup>t</i>                           | Arabic?                 |
| Vienna 1145                             | S                          | <i>'bym</i><br><i>&lt;bn/br&gt; h<sup>d</sup>mm?</i>  | Arabic                  |
| Berlin 2620                             | S                          | <i>lh<sup>y</sup><sup>c</sup>? (c<sup>y</sup>hl?)</i> | Arabic?                 |
| Berlin 2622                             | S                          | <i>hywm</i>   | Arabic                  |

### 3.4 Beginning of the South Semitic script

#### 3.4.1 Palaeography (see chart 1 on p. 99)

We shall rely for our discussion mostly on the inscriptions which are earlier than the sixth century, and of which there are published photographs. The letters are listed, for convenience, in an order based on the Hebrew one.

**Alif:** All the examples but one resemble the North Arabian form, and no archaic features were observed. Garbini (1976, 167) regarded the *alif* on the **Anah seal** as early, since he saw only one stroke on its "pedestal". Examination of the original has however shown that there are two strokes as usual. The upper part of the **Munich-seal** letter is not clear, but the form of **ha** would indicate a North Arabian origin for the inscription. The right-hand sign on the **Tell el-Kheleife jar**, identified by some as *alif*, is probably a

monogram.<sup>28</sup> The acute angles of the zigzag of *alif* on the South Arabian Vienna seal 1145 would have indicated a relatively late date in the monumental inscriptions. The glyptic and the other letters, however, favour an early date.

**Ba:** This letter displays no archaic features in the texts discussed.

**Gim:** The examples on the Erlenmeyer cylinder seal and perhaps that on the Ur brick are South Arabian in form, but the other specimens are North Arabian. South Arabian *gim* generally resembles Phoenician *gimel*, but the South Arabian *lam* is almost identical to the Phoenician *gimel*.

**Dal:** A triangular letter, identified as *dal* that is presumably earlier than the standard form with the additional vertical stroke, appears in three inscriptions—the Ur brick, Anah seal and Ward seal 1211. Current in the eleventh–tenth centuries and occasionally employed later,<sup>29</sup> triangular *dalets* are known from the Phoenician script. If indeed *dal*, this triangular letter would provide further support for an eleventh–tenth-century date of the adoption of the alphabet in Arabia. But its identification is not finally settled, the main obstacle being the juxtaposition of both

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28. Jamme (1963, 51–54; 1966, fig. 19) composed a table of the *alif*'s development. Based on rock graffiti with no historical content, this table does not contain a single chronological datum. Jamme did not even note the sources of the letters in the table, leaving the reader with a collection of abstract forms whose "evolutional" relationships are highly doubtful. Judging from the table's caption—"tentative genealogical chart..." followed by a lengthy explanation ("Some remarks seem necessary to avoid any misunderstanding with regard to the value of the chart...")—Jamme viewed it in much the same way, as did Ryckmans (1969, 247) in his review of Jamme 1966.

29. The triangular *dalet* on the twelfth-century (perhaps early eleventh-century) <sup>c</sup>Izbet Sartah ostrakon is different.

types on the **Anah seal**; other readings, such as **fa** (q.v.), suggest themselves. In the other early South Semitic texts, the well-known South or North Arabian forms of *dal* with vertical stroke appear. Boneschi suggested that the left-hand sign on the Tell el-Kheleife jar contains a *dal*, but see **ya** below.

**Dal**: The only example, on **Vienna seal 1145**, is classically South Arabian. Garbini identified as *dals* two different letters, on the **Anah seal** and **Erlenmeyer stamp seal** (see section 3.3.4).

**Ha**: The Y-shaped or forked form, considered early in the stone inscriptions, appears in the **Hajar Bin Humeid monogram**. The later, rounded, South Arabian form can be seen on the **Yale seal**, and the North Arabian form appears on **Vienna seal 1247**. A V-shaped letter on the **Uruk tablet** was interpreted *faute de mieux* as *ha*, and if this is correct, it may be a cursive form.

**Waw**: Of the three examples, those on the **Yale and Berlin 2622 seals** are, like most of the letters on these seals, classically proportioned South Arabian (but see **ʿayn**). On the **Uruk tablet** I made out an ordinary *waw* (a line in a circle), but others have seen a cross in a circle. Consequently, *waw* has also been suggested for a fragmentary letter on the **Nippur tablet**, which might be reconstructed as a cross in a circle (see the discussion of **ta** below). In any case, *waw* with a cross would indicate a later date and a North Arabian (or South Arabian cursive?) source. Cf. section 3.3.5 for the remote possibility that **City of David sherd 2** contains this letter.

**Za**: An ordinary South Arabian example appears on the **Ur brick**. See also the discussion of Proto-Canaanite **zayin** in Sass 1988, 117.

**Ha**: There are ordinary, rounded South Arabian specimens on the **Yale, Vienna 1145** and perhaps **Berlin 2622 seals**; possibly also on the **Tell el-Kheleife jar**. A rectilinear *ha* is to be found on **Berlin seal 2620**. The shape of the letters on the **Munich seal** and perhaps **City of David sherd 1** is the North Arabian legless (Lihyanite?) one.

Conversely, the latter could be of the early South Arabian forked shape (von Wissmann's Palaeographical Stage I, see below), to which the letter on **Sherd 2** certainly belongs.

**Ha:** Examples of the North Arabian type appear on **Ward seal 1208** and probably the **Ur bowl**.

**Ta:** One of the **Nippur tablet** letters (restored as *waw* in its first publication), if it is complete, slightly resembles one of the North Arabian forms of *ta*. With no photograph available, its identification remains an open question. A letter on **Ward seal 1209** is somewhat similar to the South Semitic *ta*, especially to one of the Thamudic letters whose identification as *ta*, however, is uncertain (see also *dad* below).

**Ya:** Note the *rho*-shape of the letter on the **Munich seal**, which is only hesitatingly identified as *ya*. A similar letter can be seen on **City of David sherd 2** (which alternatively may be a Greek inscription), and perhaps in the left-hand ligature of the **Tell el-Kheleife jar** and on the **Ur tablet**. **Berlin seal 2620** may contain another letter of this kind. Their development remains obscure.

**Kaf, lam:** These have no archaic characteristics in the inscriptions listed. See section 3.3.6 on the *lam* on the **Yale seal**.

**Mim:** Nine examples show two superimposed triangles (in six they touch and in three they do not), a form that in the stone inscriptions of Arabia is considered earlier than the open shape. Only one, the *mim* on the **Louvre seal**, is open, but the eighth-seventh-century iconography of the seal shows that the shape is incidental here.<sup>30</sup> See also the discussion of *fa*.

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30. Considering the small space available, this is not surprising. Seal legends may occasionally be much later additions, but this does not seem to be the case with the South Semitic seals discussed here. On our seal, as on all other tripartite stamp seals, the legend is taken to be contemporary (see section 3.3.8).

**Nun:** Most of the Proto-Arabic *nuns* are N-shaped (or resemble a reversed N), and this may be evidence of the early date of this form--the equilateral *nuns* are very similar to their Proto-Canaanite/Phoenician counterparts of the eleventh-tenth centuries. Especially interesting is the stance of *nun* on the **Anah seal**, which is reminiscent of the early Phoenician and also of the Dedanite-Lihyanite letter (see also section 3.3.7 for the *nuns* on the **Ecole Biblique impression**).

**Sin, <sup>c</sup>ayn:** These have no archaic features in the inscriptions discussed, except perhaps for the relatively large size of the five <sup>c</sup>*ayns*, all from seals. On the other hand, it may have been difficult to keep to the "correct" proportions when inscribing a small object such as a seal. The same holds true for *waw* and the head of *ya*.

**Fa:** The lentoid form, considered earlier than the rhomboid type in the stone inscriptions, appears on the **Louvre seal** (see, in this connection, its discussion in section 3.3.6) and, if the drawing is accurate, on the **Ur bowl**. Typologically earlier, D-shaped *fas* are found on the **Nippur tablet** (if the drawing is reliable), **Erlenmeyer cylinder seal**, **Ward 1209**, **Walters Gallery and Brussels seals**, perhaps also on the **Tell el-Kheleife jar**. They have sometimes been identified as *mims*, but Garbini has suggested *fa*, a more likely possibility since these letters resemble the lentoid *fas* of the early stone inscriptions more than any other letter. Note that their stances are not fixed in the sense that the direction of writing cannot be determined by them; on the **Walters Gallery seal** *fa* and *ra* are both dextro-sinistral, while on the **Erlenmeyer cylinder seal** they point in opposite directions. If not *dals*, the triangular letters on the **Anah seal** etc. could be early *fas*.

**Sad:** A letter reminiscent of North Arabian (or South Arabian cursive) forms appears on the **Uruk tablet**. One of the **Tell el-Kheleife** signs was thought to be *ṣad*, but it is more likely a ligature.

**Dad:** There is a letter which is rather similar to South Semitic *ḏad* on **Ward seal 1209**, but *ṭa* seems preferable because of the ensuing personal name.

**Qaf to taw:** These all resemble known South or North Arabian forms. The *ra* on the Munich seal is uncertain. Note the form of the *taw* on the Yale seal.

How do these observations relate to the epigraphy of the early monumental inscriptions of South Arabia? Although scholars disagree about their absolute chronology (and on the events of South Arabian history which are recorded in them), there is at least general agreement on the relative order among Pirenne, Ryckmans, Albright, von Wissmann and others. The early stages of the South Arabian script according to von Wissmann (1976) are as follows (see figs. 45, 46):

|                   |                                     |
|-------------------|-------------------------------------|
| Stage I           | tenth–mid–eighth centuries          |
| I–II transition   | mid–eighth–early seventh centuries  |
| Stage II          | early seventh–early fifth centuries |
| II–III transition | early–late fifth century            |

Stage I includes the Hajar Bin Humeid monogram (von Wissmann 1976, 318–322; tenth–ninth centuries in his opinion) and the earliest stone inscriptions, which he dates to the middle of the eighth century. These texts have the following characteristics: the "flag" of *dal* is trapezoidal or triangular, and in the latter case its height is the same as that of the "staff". *Ha*, *ha* and *ḥa* have forked heads. The triangles of *mim* are wide, and their tips are sometimes rounded. The lentoid form of *fa* is common, while the rhomboid form is still rare. The "pedestals" of *alif*, *kaf* and *sin* are relatively high. The height–width ratio of most of the letters does not exceed 2:1, and the circles (of *ʿayn*, *waw*, etc.) are correspondingly large.

Stage II (von Wissmann 1976, 335–336) is the "classical" stage. In the monumental inscriptions the letters look almost as if they belong to a single font—the cursive elements were eliminated. Only straight lines, circles, semicircles and a crescent for *ra* are used. The height–width ratio is now 3:1 and sometimes 4:1, and the circles are accordingly smaller. The *mim*'s triangles thus become flatter and now sometimes do not touch. *Fa* is always rhomboid.

Stage III (von Wissmann 1976, 358–359) is characterized by the sharp angles in the zigzags of *alif*, *ḥa* and *nun*. *Mim* is always open.

Following are the major shortcomings of this palaeographic scheme:

1. The large number of exceptions, even in the monumental inscriptions. For instance, sharp angles appear in the zigzag of *alif* as early as stage I (von Wissmann 1976, fig. 3), open *mim* is found in stage II (*ibid.*, note 116b), and there is a *dal* with "archaic" proportions in stage III (*ibid.*, 359). Elements typical of stage II are nearly always present in inscriptions assigned to stage I. In fact, the first stage is really the I–II transition, and von Wissmann even hints as much (1976, note 20).

2. The scheme only holds good for genuine monumental inscriptions on hewn blocks of stone, perhaps only for royal inscriptions. Less monumental examples, even when large and important like the great onomastic lists carved in the rock, depart from the rules. There are cursive traits, and ratios smaller than 3:1, which generally produce an archaic impression (von Wissmann 1976, 357, 364 and elsewhere). Rock graffiti naturally include even more cursive elements, and since the South Arabian cursive script has hardly been studied, they cannot be used at present in palaeographical analyses (cf. Jamme 863 and 1049 in section 3.3.2).

3. The absolute chronology bears a close resemblance to that of Albright (1956). It is based on the palaeographic analysis of the lists of rulers and other inscriptions which serve as a link between the date of the Ḥajar Bin Ḥumeid pithos monogram and the mention of two Sabaeen rulers in Assyrian records.<sup>31</sup> However, as we have seen, even von

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31. The starting point for von Wissmann's Sabaeen chronology is the uncalibrated radiocarbon date from the Ḥajar Bin Ḥumeid beam, presumed to be later than the pithos. No account was taken of the possibility that the beam could yield a date earlier than that of the stratum in which it was found (see section 3.3.2). However there is no reason why the pithos could not be dated to the tenth–ninth centu-



ries, though the date could fluctuate by as much as two centuries (and perhaps more).

Von Wissmann read the monogram on the pithos as *ha* and *mim*, assigning them to palaeographic stage I, to which he also attributes the earliest rulers' inscriptions. He constructed the sequence of rulers from the great onomastic lists hewn in the rock near Marib. This sequence was anchored in absolute chronology in the following way: the inscriptions considered earliest are attributed to palaeographic stage I, dated by the monogram on the pithos to the tenth–ninth centuries, and thought to last till the eighth century. The inscriptions of the Sabaeen mukarribs Yita<sup>c</sup>-'amar Bayyin bin Sumuhu<sup>c</sup>ali and Karib'il Watar bin Damar<sup>c</sup>ali (von Wissmann 1976, 352–353), belong to the middle and end of the transition from stage I to stage II respectively. Since the transitional stage is thought to begin in the mid–eighth century, it seems reasonable to identify these two rulers with the Arabs Ita'amra and Karibilu mentioned in the inscriptions of Sargon (715) and Sennacherib (685). However, these are dynastic names that appear again and again. (The next chronological anchor in South Arabian history is the mention in *RES* 3022 of a battle between Media [*mdy*]) and Egypt [*mšr*], which some scholars think refers to the campaign of the Persian crown prince [later king Artaxerxes III] in 343 B.C.

In any event, neither the attribution of the pithos monogram to stage I nor the precise distinction between stone inscriptions from Stage I and the I–II transition are absolutely certain, even according to von Wissmann himself (see main text). The entire chronological structure is based on assumptions which do not contradict each other but cannot be proved. *If* the Hajar Bin Humeid pithos dates to the tenth–ninth centuries, and *if* its two letters do belong to palaeographic stage I and not to the I–II transition, and *if* the earliest rulers' inscriptions from Sheba also belong to stage I and not to the I–II transition, and *if* stage I indeed carried on till the mid–eighth century, and *if* the distinction between stage I and the I–II transition (which even von Wissmann admitted is very weak) is valid, then the Ita'amra and Karibilu of the Assyrian inscriptions may be identified

Wissmann himself admitted that the palaeographic scheme is far from perfect. As regards the **Hajar Bin Humeid** pithos monogram, one could only wish that early South Arabian palaeography were based on something rather more solid than a single object whose minimal chronological range is 200 years, and whose two significant letters, assigned by von Wissmann to stage I, could easily belong to the I-II transition if not to stage II.

4. Von Wissmann (1975, 27–31) did mention the Proto-Arabic inscriptions from Mesopotamia and other places but made almost no use of them to help date the South Arabian texts.

In the following summary, the palaeography of the early South Semitic inscriptions is examined with a view to elucidating the birth-date of the South Arabian alphabet. In most cases these inscriptions date from the eighth–seventh centuries, assuming that the texts on seals are contemporary with the seals themselves (see section 3.3.8). The Proto-Arabic letters which may display elements earlier than the earliest of the South Arabian inscriptions are *dal*(?), *nun* and D-shaped *fa*.

The Proto-Canaanite/Phoenician forms closest to the Proto-Arabic triangular *dal* (if identified correctly) and *nun* date from the eleventh–tenth centuries (Sass 1988, 184). How do these forms relate to the *dal* and *nun* of the early stone inscriptions? The latter *dals* always have a stroke next to the apex of the triangle. If the triangular Proto-Arabic letter of the eighth–seventh centuries is indeed *dal*, it would be earlier than the form with a vertical stroke. If so, one must suppose that the stone inscriptions from South Arabia cannot be earlier than the seventh century. I cannot insist on this (see

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with the mukarribs mentioned in the Sabaeen texts (assuming that von Wissmann's sequence of rulers is correct). The absolute and part of the relative chronology of South Arabia in the first millennium B.C. are still no more than working hypotheses, in spite of von Wissmann's enormous effort. And as for Pirenne's (1984, 130–134; 1987) stand, even though much of her criticism of von Wissmann's thesis is justified, the "Proto-Arabic" seal inscriptions are sufficient to refute her own low chronology (see main text).

above), but the proponents of an earlier, tenth–eighth–centuries date for the South Arabian stone inscriptions will have to come up with some explanation or alternative identification for the triangular letter.

As for *nun*, although in the South Arabian stone inscriptions its "classical" angles of 90° become acute again (the Proto-Arabic *nun* having acute angles), the "return" to acute angles did not develop before the middle of the first millennium at the earliest. However, the height–width ratio of Proto-Arabic *nun*, less than 2:1, indicates an early date. All this rests on the assumption that there is a link between the "Proto-Arabic" and the earliest monumental South Arabian inscriptions. However, the link could be with the cursive South Arabian script, or with the North Arabian script (which is quite likely, see the discussion of the *Anah seal*). Whatever the truth of the matter, the closest Phoenician form is that of the eleventh–tenth centuries.

If the D-shaped letter is indeed *fa* (and this conclusion, arrived at by a process of elimination, seems the likeliest), the following development could be postulated: the South Semites added a straight vertical line to the crescentic Phoenician *pe* whose earliest occurrence is in the tenth-century (or late–eleventh-century) Byblian inscriptions. (It is unfortunate that *pe* is not recorded in definite eleventh-century Proto-Canaanite/Phoenician texts except for a doubtful letter, that could be *<sup>c</sup>ayin*, on the *Rapa arrowhead*; see Sass 1988, 184.) The D shape is the South Semitic form found in several inscriptions of the eighth–seventh centuries. In the stone inscriptions, *fa* took on the lentoid form most probably out of considerations of symmetry, which were to prove of such great importance in the development of the South Arabian script. (The lentoid letter appears on the *Louvre seal* and *Ur bowl*, which also has an N-shaped *nun*—if the sketch is accurate; however, the date of the bowl remains unknown. No rhomboid *fa* is known in the Proto-Arabic inscriptions.) The addition in South Arabian of a vertical line to the Phoenician form was also necessary in order to differentiate the letter from *ra* (which did not have Phoenician *resh* as its prototype). A vertical line was appended to the Phoenician prototype in the case of *mim* as well (see below).

As far as those Proto-Arabic letters which do not differ from the examples in the early stone inscriptions are concerned, the situation is as follows: *ba* shows some similarity to the earliest Proto-Sinaitic/Proto-Canaanite form. *Gim* is generally similar to the Proto-Canaanite/Phoenician letter. *Ha*, on the other hand, resembles Proto-Canaanite *he*, while *ya* is similar to Proto-Canaanite *waw* although the resemblance may be coincidental (see below). *Lam* is much the same as the angular Phoenician *lamed*, which dates from about the mid-eleventh century onwards (see the discussion of *lamed* on the Revadim seal in Sass 1988, 124); the Proto-Arabic letter is inverted, however (as is *lambda*). It seems likely that South Arabian *mim* is derived from the early Phoenician form. All but one of the Proto-Arabic *mims* are composed of two triangles, as in the earliest stone inscriptions, and the one exception is possibly incidental. The South Arabian *ʿayn* is identical to the round Proto-Canaanite/Phoenician *ʿayin* without pupil. *Sad* is quite similar to the Proto-Sinaitic *šade* (or *d* or *z*). There may be a connection between South Arabian *qaf* and the Proto-Canaanite/Phoenician *qop* of the type first seen on the twelfth-century (or early-eleventh-century) *ʿIzbet Sartah* ostrakon. *Shin* and *taw* resemble their Proto-Canaanite and Phoenician counterparts (on the stance of *shin* see below). There is little or no similarity among the rest of the letters; those added to the standard 22 Phoenician ones are particularly noteworthy. *Dal*, for instance, actually resembles Aramaic and Hebrew *het* from the ninth (or tenth?) century onwards. *Ha* is totally different from Proto-Sinaitic *h* which was probably still in use in the fourteenth-thirteenth centuries, judging by its similarity to the Ugaritic letter (see the discussion of *h* in Sass 1988, 117-119).

### 3.4.2 Northwest Semitic palaeography and the date and nature of the adoption of the alphabet in Arabia

The resemblance of about ten of the South Arabian letters to Proto-Canaanite/Phoenician letters confirms the position held by most scholars that consonantal alphabetic writing was adopted in South Arabia under the influence of the Northwest Semitic alphabet. Robin (1976) and Ryckmans (e.g. 1981, 704) were sceptical about this connection, though Ryckmans did not rule it out (*ibid.*, 698). The palaeographic deve-

lopment of the South Arabian script was slow because of the predominance (at least from today's point of view) of the lapidary script—the cursive script has hardly been studied at all (Beeston 1987, 106). It thus seems reasonable to go along with the generally accepted assumption that the earliest known forms of the letters resemble the original forms adopted several centuries earlier (see the end of this section). Even if several early South Semitic letters have early Proto-Canaanite parallels, in some cases seemingly Proto-Sinaitic, it is by the latest Proto-Canaanite/Phoenician comparisons that the time of the adoption of the alphabet must be determined; most of these cluster around 1000 B.C. This is shown in the following chart:

|             | 1800 | 1700 | 1600 | 1500 | 1400 | 1300 | 1200 | 1100 | 1000 | 900 |
|-------------|------|------|------|------|------|------|------|------|------|-----|
| <i>Ba</i>   | .    |      |      |      |      |      |      |      |      | .   |
| <i>Gim</i>  | .    | .    | .    | .    | .    | .    | ?    | ←    |      | →   |
| <i>Dal</i>  | .    | .    | .    | .    | .    | .    | .    | ?    | ←    |     |
| <i>Lam</i>  | .    | .    | .    | .    | .    | .    | .    | .    |      | →   |
| <i>Mim</i>  | .    | .    | .    | .    | .    | .    | .    | ?    | ←    | ?   |
| <i>Nun</i>  | .    | .    | .    | .    | .    | .    | .    | ?    | ←    |     |
| <i>cayn</i> | .    | .    | .    | .    | .    | ?    | ←    |      |      | →   |
| <i>Ṣad</i>  | →    | .    | .    | .    | .    | .    | .    | .    | .    | .   |
| <i>Qaf</i>  | .    | .    | .    | .    | .    | .    | ?    | ←    |      | →   |
| <i>Shin</i> | .    | .    | .    | .    | .    | .    | ?    | ←    |      | →   |
| <i>Taw</i>  | .    |      |      |      |      |      |      |      |      | .   |

The angular *lam* indicates a date no earlier than about the mid-eleventh century (after the *el-Khaḍr arrow-heads*, see Sass 1988, 124), while *nun* implies that the date cannot be later than the tenth century. *Ba*, and *mim*, and perhaps *dal*, also seem to point in this direction, either as a *terminus post quem* or a *terminus ante quem*. This implies that the South Arabian alphabet was born in the eleventh or tenth century. It is impossible to accept Cross' suggestion (e.g. 1954, 22) that the alphabet was adopted in southern Arabia in the fourteenth–thirteenth centuries, if only for the reason that this would imply that South Arabian *lam* and *nun* had for about 300 years followed precisely the course of development of the Proto-Canaanite/Phoenician *lamed* and *nun*. In other words, no connection between the South Arabian *lam* and *nun* and thirteenth-century Proto-Canaanite examples of these letters, e.g. those on the *Lachish ewer*

(Sass 1988, 184), can be traced. Cross (1954, 22) and others have found additional support for a very early adoption of the alphabet in South Arabia in the multidirectional writing and in the stance of *shin*. How is one to find out whether boustrophedon writing and the stance of *shin* were learnt from the Northwest Semites or were local features? I would prefer to regard the first as an independent development (cf. Naveh 1982, 49: "Given the length of South Arabic monumental inscriptions which covered huge walls, the use of boustrophedon was virtually inevitable"). The vertical stance of *shin* could have been connected with the uniformity of the script—all South Arabian letters, except circular *waw* and *ʿayn*, are vertical. It should also be borne in mind that Ethiopic *may* and *shawt* rotated 90°, obviously without Proto-Canaanite influence; several Greek letters provide further examples of independent rotation (see section 4.2).

It seems more likely that, as with the Ugaritic script, several letter-forms were borrowed from the Proto-Canaanite/Phoenician script while others were created arbitrarily (see Sass 1988, 164). We have of course no idea of the considerations which motivated the people who adopted the alphabet to act either way. For instance, it is impossible to determine whether the resemblance of South Arabian *ya* to Phoenician *waw* was deliberate, i.e. that the form was adopted for some reason for another consonant, or whether it was simply designed without any reference to the Phoenician letter. *Ba* and *ṣad* are actually most like the Proto-Sinaitic forms of *bet* and *ṣade*, even though few would date the adoption of the alphabet in Arabia as early as that. The resemblance of the *ṣade* from Sinai 364 (Sass 1988, figs. 75, 76) to the South Arabian form (Cross 1980, 12) is deceptive. The "loop" in the Sinai letter is a result, probably an unintentional one, of the way in which it was incised with a single stroke of the stylus, and cannot be compared to the circle at the top of South Arabian *ṣad*. This, like the circles in other letters, is most probably a device intended to create more than one letter from a basic form (here including also *ha* and *ḥa*).

Some of the South Arabian forms were invented independently or, as noted, even derived from each other. Occasionally the derivation may have stemmed from phonetic closeness; this is particularly clear in several of the seven

letters which are missing from the Phoenician alphabet. It would be awkward to assume, then, that the Arabs adopted the alphabet in the fourteenth or thirteenth century, at a time when the full Proto-Canaanite alphabet, with at least five of these seven graphemes, would have been at their disposal. The Greeks also changed the phonetic value of several letters and invented new forms to adapt the Phoenician alphabet to the needs of their language. The Arabs took even greater liberties. Following are three groups of letters which look as if derived from three basic forms without any reference to the Phoenician alphabet:

|           |           |             |                  |     |         |
|-----------|-----------|-------------|------------------|-----|---------|
| ( $\Pi$ ) | 𐤀 𐤁 𐤂 𐤃 𐤄 | 𐤅 𐤆 𐤇 𐤈 𐤉 𐤊 | ( $\text{III}$ ) | 𐤋 𐤌 | 𐤍 𐤎 = 𐤏 |
| (b)       | ' k s ġ   | h ḥ ḫ ṣ z   | (t)              | d   | (š) ś   |

Like with Ugaritic (but unlike what happened in Greek), the formative stage of the South Arabian script seems to have lasted a short time. Thus the term "Proto-Arabic"<sup>32</sup> is inaccurate, although I have used it occasionally for the sake of convenience. The number of archaic elements is very small even in the earliest inscriptions. Once the background and the need for a script existed in South Arabia, in the kingdom of Sheba to be exact, the alphabet was adopted and adapted to the local language, probably as a deliberate act of the government rather than as a gradual process. The alphabet seems to have been learnt by the South Arabians directly from the Phoenicians, bypassing North Arabia.

Once again, it should be noted that letters considered characteristic of North Arabian script are not rare in the early South Semitic seal inscriptions, such as *alif* on the Anah seal and Ward seal 1211, *gim* on the Erlenmeyer stamp seal and *dal* and *ḥa* on Ward seal 1208. This means that the North Arabian script was well established in the seventh century, and probably as early as the eighth, if not

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32. Meaning the archaic inscriptions, especially those from Mesopotamia, labelled "Chaldaean" by Albright (1952). There is no reason to call "Proto-Arabic" the stele and two rock inscriptions published by Jamme (see section 3.3.2), since they are probably later.

the ninth. Three hundred years, at most, after the birth of the South Arabian script, and probably very much earlier, the North Arabians also felt in need of a script, and adopted that used by their southern relations; some Northwest Semitic influence on the shape of particular letters (and their order? see section 3.4.3) is not to be ruled out. Interaction between the North Arabian script and the almost entirely unknown South Arabian cursive script (cf. von Wissmann 1970, 949–950; 1975, 43–46 and section 3.4.1) is likely to have existed, and as long as the latter remains so obscure, scholars can safely blame it for any "deviation from the norm" in the lapidary inscriptions.

### 3.4.3 The order of the South–Semitic alphabet and the letter names

Unlike the people of Ugarit and Greece, the Arabs did not copy the Proto–Canaanite order of the letters, nor perhaps the letter names (the subject of the names is not clear—see below). Practically the entire order of the South Semitic alphabet is now known, from the following sources (references in Ryckmans 1981): the **Timna pavement**, whose stones are marked with letters, although some of them may have been shifted (figure 47); a **mould from Timna**; two **rock graffiti from el-<sup>c</sup>Ula** (figures 48, 49; the first is **RES 3809**); two inscriptions from Marib (**Jamme 701B** and **724**, figure 50); an **inscription in the Fitzwilliam Museum, Cambridge** (figure 51); a **rock graffito from Dakhanamo in Eritrea** (figure 52) and the order of the Ethiopic alphabet. There are published photographs of only two of the abecedaries, but the overlapping sections of the others make it possible for us to evaluate them as well. In most of the the lists that seem not to match, the relevant parts are unclear. I would thus prefer to adopt Ryckmans' (1981, 704) point of view, and regard the order of the letters as being identical in all the South Semitic alphabets. This order is as follows:

|          |          |          |          |          |          |          |          |          |                  |          |          |          |          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| <i>h</i> | <i>l</i> | <i>ḥ</i> | <i>m</i> | <i>q</i> | <i>w</i> | <i>š</i> | <i>r</i> | <i>b</i> | <i>t</i>         | <i>s</i> | <i>k</i> | <i>n</i> | <i>ḥ</i> | <i>z</i> | <i>ś</i> | <i>f</i> | <i>'</i> | <i>c</i> |
| 1        | 2        | 3        | 4        | 5        | 6        | 7        | 8        | 9        | 10               | 11       | 12       | 13       | 14       | 15       | 16       | 17       | 18       | 19       |
| <i>ḏ</i> | <i>g</i> | <i>d</i> | <i>ḡ</i> | <i>t</i> | <i>z</i> | <i>ḏ</i> | <i>y</i> | <i>t</i> | <i>š</i>         |          |          |          |          |          |          |          |          |          |
| 20       | 21       | 22       | 23       | 24       | 25       | 26       | 27       | 28       | 29 <sup>33</sup> |          |          |          |          |          |          |          |          |          |

33. For comparison, the order of the Ethiopic alphabet is: *h l ḥ m s r s q b t ḥ n ' k w c z y d g t p s d f p*.



This is slightly different from the order suggested by Ryckmans (1981, note 17). The positions of the first eight letters are the same in most of the lists. **Ba** (9) and **gayn** (23) should probably be transposed (Ryckmans agrees with this); the identification of these very similar letters in the abecedaries is uncertain. I have preferred the order suggested here solely because of the **bet-tawi** sequence in Ethiopic. **Ta's** position as no. 10 is certain. The order of the next five letters (**sknhz**) is based on a combination of data from the **Timna pavement**, **RES 3809** and the **Dakhanamo graffito**, and is not certain. The placement of **sin** after **ta** can be proved from several abecedaries, even though it is different on the **Timna pavement**. **ś** appears before **fa** on the **Timna pavement**, but the letter preceding it there (our **za**) is not clear. If the order of the remaining letters is correct, there is no other place for **ś** but no. 16. The next six letters, **f<sup>c</sup>dgd**, are documented on the **Timna mould** and in **RES 3809**. On the 23rd letter see above. **Ta** exists only in **RES 3809**; it "falls between two stools" on the **Timna mould**. The identification of the next letter as **za** is based on **RES 3809**. It was drawn by Jaussen and Savignac as a *sigma*-shaped **shin**; **shin** already exists in its correct place in this inscription, however, so the similarly shaped **za** should be inserted here. The letter in this position on the **Timna mould** should probably also be identified as **za** (Jamme read it as **mim**). This means that the entire end of the alphabet is recorded in **RES 3809**, and part of it appears on the **Timna mould**. The order seems slightly different in the **Dakhanamo graffito**, but it is very carelessly written and blurred there, except for the three last letters which are in the "correct" order.

The situation is different in the North Arabian scripts, or at least in some of the later ones. Knauf (1985) published a South Safaitic (Thamudic) abecedary from Khirbet es-Samra in northern Transjordan, of late Roman or Byzantine date. Except for some minor differences, the order is identical to the 22 Phoenician-Aramaic letters, and the extra letters are mostly grouped at the end. This order is reminiscent of the numerical values of the letters of the Arabic alphabet. It seems, then, that even if the North Arabian peoples did at first adopt the South Arabian alphabetic order, they later abandoned it in favour of the order of the Aramaic alphabet, which was very influential in their territory.

The link that can sometimes be traced between closely-related consonants and the forms of the letters which represent them, does not pertain to the alphabetical order: there is no phonetic or formal grouping of the letters. It is almost certain that the order of the South Arabian letters was memorized by means of some sentence or rhyme based on their names. This was probably also true of the Proto-Canaanite script and others.

There is no documentation of the names of the South Arabian letters, and the earliest list of the Ethiopic letter-names which were derived from them is to be found in a translation of the New Testament printed in Rome in 1548. Most of the names resemble the Hebraeo-Greek names, though a few, such as *naḥash-nun*, are different. There are of course also names for letters which do not appear in the Phoenician alphabet but existed in the full version of the Proto-Canaanite script, such as *ḥarm-ḥ*. Gardiner (1916, 8) identified the Proto-Sinaitic snake as *nun* on the basis of the Ethiopic letter-name (see Sass 1988, 125). By a similar line of reasoning, Cross and Lambdin (1960, 22) arrived at the conclusion that the original name of Proto-Sinaitic *ḥ* must have been *ḥarm*. However, Ullendorff (1951, especially 211-213) has shown that the names of the Ethiopic letters we know were probably invented in the sixteenth century A.D. by European missionaries or scholars who drew on the Hebraeo-Greek names. Also, besides *naḥash*, there are other Ethiopic names which differ from the Phoenician-Hebrew ones—*yaman-yod*, *sat-samek*, *af-pe* and *shawt-shin*. In at least some of these, the Ethiopic name definitely does not match the acrophonic source of the Proto-Sinaitic letter. How, then, can credibility be lent to *ḥarm-ḥ* and others? And perhaps the Ethiopic association of *naḥash* and *nun* is coincidental? As long as we do not know the South Arabian letter-names or at least early Ethiopic names which would prove or disprove Ullendorff's view of a recent invention, it is suggested that no conclusions be drawn from the 1548 list of letter names.

It was the order of the South Arabian letters which led Ryckmans to conclude that there was no link between this and the Phoenician alphabet (above, section 3.4.2).

However, the forms of some of the letters and the very concept of alphabetic writing point to the opposite.

### 3.5 Conclusions

Even if various pieces of evidence indicate that an advanced civilization may have existed in South Arabia in the second millennium, the first texts in South Arabian script date from the eighth century, or at the earliest, the ninth or tenth. The possibility of a twelfth-century beginning of the caravan trade cannot be ruled out, and archaeological evidence can date the birth of the kingdom of Sheba only in a general way to the twelfth-tenth centuries. But as for the emergence of writing in southern Arabia, it is possible to be more precise: although the earliest texts did not survive, the script of the oldest extant inscriptions seems not to have changed much; several letter forms in these inscriptions demonstrate that the Arabs learnt the concept of alphabetic writing from the Phoenicians or their neighbours and applied it to their own language in the eleventh or tenth century—definitely not in the fourteenth-thirteenth centuries. (The forms of many other letters, their order and probably their names were independently created.) It is unthinkable that in the period in question a rich, export-oriented kingdom could remain illiterate for a considerable length of time; the emergence of the kingdom of Sheba cannot be substantially earlier than the adoption of the alphabet in Arabia.

## CHAPTER 4: NORTHWEST SEMITIC PALAEO- GRAPHY AND THE BIRTH-DATE OF THE GREEK ALPHABET (see chart 2)

### 4.1 Naveh's view

SEVENTEEN years ago, Naveh (1973) published his bold thesis advocating an eleventh-century B.C. date for the adoption of the alphabet by the Greeks. His study has been ignored by most classicists (e.g. Coldstream 1982, 269–272; cf. Naveh 1982, 185; 1987, 102; though not Millar, 1983, 93–94). Several Semitists have taken the suggestion seriously (e.g. Cross 1980, 17 and in later papers). Naveh's views may be summarized as follows: the letter-forms in the earliest, eighth-century, Greek inscriptions, as well as their varying stances and the unfixed direction of writing, demonstrate that the Greek alphabet was borrowed from the Proto-Canaanite/Phoenician in the eleventh century. The lack of eleventh–ninth-century Greek texts does not, in itself, undermine Naveh's theory (Naveh 1982, 177). The purpose of this chapter is to suggest that the relevant Northwest Semitic palaeographical evidence is less decisive—its support of a tenth- or ninth-century adoption of the Greek alphabet is as strong as, and perhaps stronger than, its support of an eleventh-century date.

### 4.2 A critique of Naveh's view and an alternative

It is preferable not to base the argument for an early borrowing of the Greek alphabet on letter stances and multi-directional writing. How does one distinguish between supposed eleventh-century Proto-Canaanite/Phoenician influence and later, independent Greek developments? The vertical stance of *sigma* invoked by Naveh does not strengthen his position—did not *lambda*,<sup>34</sup> for instance, also rotate

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34. Naveh (1987, 108) stated that "*lamed* with its crook at the top does not occur after the middle of the eleventh century". Such *lamed* does not occur at all in Phoenician; this shape is already "taken" by *gimel* (and, to a certain

without any eleventh-century Semitic parallel? As to the letters, on p. 181 of his 1982 book, Naveh again listed the Greek letters whose forms (or stances) he considered to be exclusively of an eleventh-century Northwest Semitic origin—*sigma*, *mu*, *omicron*, *eta*, *zeta*, *delta*, *epsilon*, *nu*, *xi*, *pi*, *kappa* and *rho* (in his 1987 paper, p. 108, only *mu*, *omicron*, *delta* and *pi* remained). For *Sigma* see above. Comparisons for most of the other letters exist in the Phoenician script of the eleventh–ninth centuries, while some have parallels from only the tenth–ninth centuries: *he* with leg first appears on Ahiram's sarcophagus, and later becomes the dominant form. The disappearance of the leg from *epsilon* in the fully developed Greek script probably demonstrates that this letter had its origin in the Phoenician form *with* leg; the comparable loss of one stroke in *tau* definitely has no Phoenician prototype. A development parallel to that of *epsilon* (loss of leg) can be seen in *mu* (Jeffery 1982, 823, n. 3). *Nun* with a leg, the source of *nu*, only existed from the tenth century onwards in the Phoenician script (the Shipit-baal inscription etc.), discarding an unreliable example on the <sup>c</sup>Izbet Sartah ostrakon (Sass 1988, 126). *Nu* also lost its leg later. In fact, elimination of legs seems to have been a general trend in the evolution of Greek letters.

The only letter which is not documented in Phoenicia after the eleventh century is <sup>c</sup>*ayin* (Greek *omicron*) with dot (in early Greek texts the variant with dot is less common than its dotless counterpart). It is true that the dotted <sup>c</sup>*ayins* of the ninth-century Aramean Fekheriye inscription do not automatically invalidate Naveh's point—most of the Fekheriye letter forms could be deliberately archaistic. Moreover, it is almost universally agreed (though unproved, cf. Kaufman 1986, 13) that the Greeks took their script from mainstream Phoenician, current in the coastal cities, where the dotless <sup>c</sup>*ayin* prevailed since the tenth century. But how much faith can be put in the dot in *omicron* once all other

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extent, *pe*). Interestingly, Old South Arabian *lam* is similar in shape and stance to *lambda*. At any rate, angular *lambda* and *lam*, if their shape is derived from angular Phoenician *lamed*, point to a post-el-Khadr (i.e. after about the mid-eleventh century) borrowing of both the Greek and South Arabian scripts (cf. section 3.4.2).

Naveh's arguments for an eleventh-century adoption prove equivocal? To put it another way—the proponents of an eleventh-century adoption will have to show that the dot in **omicron** is neither a local Greek development nor of a tenth–ninth-century Northwest Semitic origin.

A variant of another letter, **eta**, bears much resemblance to the "box-shaped" Phoenician **het**, common in the twelfth–tenth centuries, and lingering into the ninth (see the discussion of the Nora fragment in Sass 1988, 91–93). Other variants of **eta** look more like the cursive, leaning, forms of **het** that are to be found in the eleventh–ninth centuries, and later.

As for **kappa**, despite attempts to point out earlier candidates, its clearest Northwest Semitic prototypes are still ninth-century slanting **kaps** (Naveh 1978, 34). The earlier **kaps** are vertical, and at most, if the different angle is considered an independent Greek development, would permit the entire eleventh–ninth-century range for the borrowing of the Greek alphabet; all the same they cannot prove an exclusively eleventh-century adoption, nor do they preclude a ninth-century (or tenth-century) one. Having to choose between palaeographic archaism (tenth–ninth-century dotted **omicron**) and "futurism" (eleventh-century slanting **kappa** foreshadowing, so to speak, ninth-century **kap**) the former would obviously be my choice. In other words, though I still hesitate, given the uncertainties of the material at hand, to dismiss the eleventh-century wholeheartedly, it is the lower end of the eleventh–ninth-century range that is better-founded, if less exciting.

### 4.3 Summary and conclusions

Indeed, most of the letters of the incipient Greek script have parallels in Proto–Canaanite/Phoenician forms of the eleventh century. However, these parallels are not restricted to the eleventh century alone; they carry on into the tenth and ninth centuries. In fact all archaic Greek letters but one also have straightforward tenth–ninth century Phoenician comparisons. The possible exception is the dotted **omicron** (and to some extent **eta**), while **kappa**'s genuine Phoenician parallels belong exclusively to the ninth century (see above).

Multidirectional writing is equivocal in its support of an eleventh-century adoption—the clearly independent rotation of some of the Greek letters casts doubt on the suggested Proto-Canaanite/Phoenician influence in the rotation of others. In the same vein, dextro-sinistral and boustrophedon writing are as likely to be internal Greek phenomena as to reflect Near Eastern influence. The obviously independent development of several Greek letters (e.g. Naveh 1982, 182) implies that the same is likely to have occurred with the others too. This uncertainty, together with the large number of local variants (*loc. cit.*), prevents the utilization of Northwest Semitic palaeography in pinpointing the date of the alphabet's adoption in Greece. Millard (1976a, 142) concluded that "Unsatisfactory though the position may be, no more precise date can be given for the adoption of the alphabet by the Greeks than the three centuries and a half, 1100 to 750 B.C." Though I share Millard's reluctance to found too much on too little, I think that this time-range can be reduced to the eleventh-ninth centuries and, opting for the alternative explanation of the dot in *omicron*, it could be clipped further to the tenth-ninth centuries.<sup>35</sup> In providing this time-span, the contribution of Northwest Semitic palaeography to the dating of the birth of the Greek alphabet is exhausted, painful though this may be for devout Semitists. Attempts to

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35. As to Bernal's view (1987 and elsewhere) on the antiquity of the Greek alphabet, one can only wonder how he gets away with it. He believes that the date of the borrowing of the Greek alphabet from the Semitic one can be taken back to before 1400 B.C., founding this assumption on, among other things, a supposed similarity between Greek and Thamudic letters. The latter he dates to the fourteenth century on the basis of incised marks on sherds from Kamid el-Loz in Lebanon, which have been so dated by the excavators (cf. also section 3.3.7). The attribution of these marks to one of the South Arabian, let alone Thamudic, scripts is highly speculative; perhaps these are not script signs at all. Furthermore, the Kamid el-Loz excavators' datings may themselves be far off the mark—one of the alphabetical cuneiform inscriptions found on the site has been dated by them to the Middle Bronze Age (see Sass 1988, 99 and 165–166 with bibliography).

narrow the span can only be based on the Greek finds themselves. Those opposed to Naveh's view, except perhaps for the most fervent philhellenes among them, can hopefully live with the present suggestion, which shortens to several decades (if the ninth-century option is chosen) Naveh's tercentennial epigraphic void preceding the earliest extant Greek inscriptions.<sup>36</sup> This chronological scheme fits in well with the epigraphical evidence for Greco-Phoenician contacts in the ninth and tenth centuries (cf. Coldstream 1982, 271-272 and the discussion of the dates of Tekke bowl and Nora fragment in Sass 1988, 88-93). While entirely possible, eleventh century contacts are not supported by such evidence (Sass, *loc. cit.*).

Naveh's thesis of an eleventh-century borrowing of the alphabet by the Greeks is unquestionably significant in its contribution to the debate; but even the span of a full century is more precise than the reticent Near Eastern evidence permits: Semitic epigraphical considerations very similar to Naveh's imply that a tenth-ninth-century borrowing is at least as plausible. Within this wide range, a ninth-century date seems to me the best choice at present since it fits the Greek data better. But should future developments in the Greek field require us to raise the age of the Cadmean letters, even by a century or more, Semitic palaeography will not stand in the way.

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36. If so, Naveh's realization (e.g. 1982, 184) that the forms of several Greek letters must have been adopted from Phoenician in the ninth century in any case, loses its relevance.



### Chart 1. The letters of the early South Semitic inscriptions

|                 | Hajar Bin<br>Humeid | Tell el-<br>Kheleife | Abu<br>Salabiḥ | Ur<br>Label | Ur<br>Brick | Uruk<br>Tablet | Cherkasky<br>Seal | Ward<br>Seal<br>1209 | Anah<br>Seal | Luristan<br>Cylinder<br>Seal | Moore<br>Seal | Ward<br>Seal<br>1208 | Walters<br>Gallery<br>Seal | Luristan<br>Stamp<br>Seal | Paris<br>Seal | Brussels<br>Seal | Ward<br>Seal<br>1211 | Vienna<br>Seal<br>1247 | City of<br>David | Munich<br>Seal | Louvre<br>Seal | Yale<br>Seal | Vienna<br>Seal<br>1145 | Berlin<br>Seal<br>2620 | Berlin<br>Seal<br>2622 |
|-----------------|---------------------|----------------------|----------------|-------------|-------------|----------------|-------------------|----------------------|--------------|------------------------------|---------------|----------------------|----------------------------|---------------------------|---------------|------------------|----------------------|------------------------|------------------|----------------|----------------|--------------|------------------------|------------------------|------------------------|
| ʾ               |                     | 𐎡?                   |                | 𐎠           |             | 𐎡              |                   |                      | 𐎢            |                              |               |                      |                            |                           | 𐎣             |                  | 𐎤                    | 𐎥𐎦                     |                  | 𐎧?             |                |              | 𐎨                      |                        |                        |
| b               | 𐎡?                  |                      | 𐎢              |             | 𐎣           | 𐎤𐎥𐎦            |                   | 𐎧                    | 𐎨            | 𐎩                            |               |                      | 𐎪                          |                           |               |                  | 𐎫                    | 𐎬                      |                  | 𐎭              |                |              | 𐎮                      |                        |                        |
| g               |                     |                      |                |             |             | 𐎯              |                   |                      |              | 𐎰                            |               |                      |                            | 𐎱                         |               |                  |                      | 𐎲                      |                  |                |                |              |                        |                        |                        |
| d               |                     | 𐎴?                   |                |             | 𐎵𐎶?         |                |                   |                      | 𐎷𐎸?          |                              |               | 𐎹                    |                            |                           | 𐎺𐎻            |                  | 𐎼?                   | 𐎽𐎾                     | 𐎿𐏀? 𐏁?           |                |                |              |                        |                        |                        |
| ḏ               |                     |                      |                |             |             |                |                   |                      |              |                              |               |                      |                            |                           |               |                  |                      |                        |                  |                |                |              | 𐏆                      |                        |                        |
| h               | 𐎶                   |                      |                |             |             | 𐎷?             |                   |                      |              |                              |               |                      |                            |                           |               |                  |                      | 𐎸𐎹                     |                  |                |                | 𐎺            |                        |                        |                        |
| w               |                     |                      |                |             |             | 𐎻              |                   |                      |              |                              |               |                      |                            |                           |               |                  |                      |                        | 𐏃 𐏄?             |                |                | 𐏅            |                        |                        | 𐏆                      |
| z               |                     |                      |                |             | 𐏈           |                |                   |                      |              |                              |               |                      |                            |                           |               |                  |                      |                        |                  |                |                |              |                        |                        |                        |
| ḥ               |                     | 𐎶?                   |                |             |             |                |                   |                      |              |                              |               |                      |                            |                           |               |                  |                      |                        | 𐏇 𐏈? 𐏉?          | 𐏊              |                | 𐏋            | 𐏌                      | 𐏍                      | 𐏎                      |
| ḥ̌              |                     |                      |                |             |             |                |                   |                      |              |                              |               | 𐏑                    |                            |                           |               |                  |                      |                        |                  |                |                |              |                        |                        | 𐏒                      |
| t               |                     |                      |                |             |             |                | 𐏒?                |                      |              |                              |               |                      |                            |                           |               |                  |                      |                        |                  |                |                |              |                        |                        |                        |
| y               |                     | 𐏔?                   |                |             | 𐏕 𐏖         | 𐏗              |                   |                      |              | 𐏘𐏙                           |               | 𐏚                    | 𐏛                          | 𐏜                         |               | 𐏝                |                      | 𐏞                      | 𐏟 𐏠?             | 𐏡?             | 𐏢              |              | 𐏣                      | 𐏤?                     | 𐏥                      |
| k               | 𐎶?                  |                      | 𐎶              |             | 𐎶 𐎷         |                |                   |                      | 𐎸            |                              |               | 𐎹                    |                            |                           |               | 𐎺                |                      |                        |                  |                |                |              |                        |                        |                        |
| l               |                     | 𐎶?                   | 𐎶              |             | 𐎶𐎷 𐎸        |                |                   | 𐎹                    |              |                              | 𐎺             | 𐎻                    |                            | 𐎼                         |               |                  | 𐎽                    | 𐎾                      | 𐎿? 𐏀? 𐏁?         | 𐏂              |                | 𐏃?           |                        | 𐏄?                     | 𐏅                      |
| m               | 𐎺                   |                      |                |             |             |                |                   |                      |              |                              | 𐏇             | 𐏈                    |                            |                           |               |                  |                      |                        |                  |                | 𐏉              | 𐏊𐏋           | 𐏌𐏍                     |                        | 𐏎                      |
| n               |                     |                      |                |             | 𐏑𐏒 𐏓𐏔       |                |                   |                      | 𐏕            |                              | 𐏖             |                      |                            |                           |               |                  |                      |                        |                  |                |                |              |                        |                        |                        |
| s               |                     | 𐎶?                   |                |             |             | 𐎶              |                   |                      |              |                              |               | 𐎶                    |                            |                           |               |                  |                      |                        |                  |                |                |              |                        |                        |                        |
| c               |                     | 𐎴?                   |                |             |             |                |                   |                      |              | 𐏐                            |               |                      |                            | 𐏐                         |               |                  |                      |                        |                  |                |                | 𐏑            | 𐏒                      |                        | 𐏓                      |
| ḡ               |                     |                      |                |             |             |                |                   |                      |              |                              |               |                      |                            |                           |               |                  |                      |                        |                  |                |                |              |                        |                        |                        |
| f               |                     | 𐎴?                   |                |             |             |                | 𐎶                 |                      | 𐎶            |                              |               |                      | 𐎶                          |                           |               | 𐎶                |                      |                        |                  |                |                | 𐎶            |                        |                        |                        |
| š               |                     | 𐎶?                   |                |             |             | 𐎶              |                   |                      |              |                              |               |                      |                            |                           |               |                  |                      |                        |                  |                |                |              |                        |                        |                        |
| q               |                     |                      |                |             |             |                | 𐎶?                |                      |              |                              |               |                      |                            |                           |               |                  |                      |                        |                  |                |                |              |                        |                        |                        |
| r               |                     |                      | (              |             | ) >         | <              | (                 | >>                   | <<           |                              | )             |                      |                            |                           |               |                  |                      |                        |                  |                |                |              |                        |                        |                        |
| š̌              |                     |                      |                |             |             |                |                   |                      |              |                              |               |                      |                            |                           | 𐏗             |                  | 𐏘                    |                        |                  | 𐏙?             |                |              |                        |                        |                        |
| ś               |                     |                      |                |             | 𐏚𐏛          |                |                   |                      |              |                              |               |                      |                            |                           |               |                  |                      |                        |                  |                |                |              |                        |                        |                        |
| t               |                     |                      |                |             | 𐏜           |                |                   |                      |              |                              |               | ++                   |                            |                           |               | x                |                      | 𐏞                      |                  |                |                | x            |                        |                        |                        |
| ṭ               |                     |                      |                |             | 𐏟𐏠𐏡𐏢        |                |                   |                      |              |                              |               |                      |                            |                           |               |                  |                      |                        |                  |                |                |              |                        |                        |                        |
| ?               |                     |                      |                | 𐏣𐏤          |             | 𐏥              |                   |                      |              |                              |               |                      |                            |                           |               |                  |                      |                        | 𐏇 𐏈              |                |                |              | 𐏉𐏊                     |                        |                        |
| WORD<br>DIVIDER |                     |                      |                |             |             |                |                   |                      | 𐏥?           |                              |               |                      |                            |                           |               |                  |                      |                        |                  |                |                |              |                        |                        |                        |

Chart 2. The Northwest Semitic letters of the eleventh-ninth centuries and the early Greek letters (Greek and Latin from Naveh 1982, fig. 162)

|              | Eleventh century             |                               |                                |                               |                              |                                  |                  |                                       |                                   |                                     |                           |                                     |                                  |   | Tenth century    |                  |                   |                       |  |               |              |         |   |  |
|--------------|------------------------------|-------------------------------|--------------------------------|-------------------------------|------------------------------|----------------------------------|------------------|---------------------------------------|-----------------------------------|-------------------------------------|---------------------------|-------------------------------------|----------------------------------|---|------------------|------------------|-------------------|-----------------------|--|---------------|--------------|---------|---|--|
|              | el-Khadr<br>arrow-<br>head I | el-Khadr<br>arrow-<br>head II | el-Khadr<br>arrow-<br>head III | el-Khadr<br>arrow-<br>head IV | el-Khadr<br>arrow-<br>head V | Rapa<br>arrow-<br>head           | Byblos<br>cone A | Gerab <sup>al</sup><br>arrow-<br>head | yl <sup>o</sup><br>arrow-<br>head | <sup>c</sup> bdny<br>arrow-<br>head | Ruweise<br>arrow-<br>head | Beqa <sup>c</sup><br>arrow-<br>head | "King of<br>Amurru"<br>arrowhead | <sup>c</sup> d <sup>o</sup><br>arrow-<br>head | Manahat<br>sherd | Byblos<br>cone B | Byblos<br>spatula | Ahiram<br>sarcophagus | <sup>c</sup> Azarba <sup>al</sup><br>arrowhead | Yahi-<br>milk | Abi-<br>baal | Elibaal | S |  |
| 𐤀            | 𐤀                            |                               | 𐤁                              | 𐤂                             | 𐤃                            | 𐤄                                |                  |                                       | 𐤅                                 | 𐤆                                   | 𐤇                         |                                     | 𐤈                                | 𐤉   |                  | 𐤊                | 𐤋                 | 𐤌𐤍𐤎                   |  | 𐤏             | 𐤐            | 𐤑       |   |  |
| b            | 𐤒                            | 𐤓                             | 𐤔                              | 𐤕                             | 𐤖                            | ?                                | 𐤗                | 𐤘                                     | 𐤙                                 | 𐤚                                   | 𐤛                         | 𐤜                                   | 𐤝                                | 𐤞   |                  | 𐤟                | 𐤠                 | 𐤡𐤢𐤣𐤤                  | 𐤥  | 𐤦             | 𐤧            | 𐤨       |   |  |
| g            |                              |                               |                                |                               |                              |                                  |                  | 𐤩                                     |                                   |                                     |                           |                                     |                                  |   |                  |                  | 𐤫                 | 𐤬                     |  | 𐤭             | 𐤮            | 𐤯       |   |  |
| d            | 𐤱                            | 𐤲                             | 𐤳                              | 𐤴                             | 𐤵                            |                                  | 𐤶                | 𐤷                                     |                                   | 𐤸                                   | 𐤹                         |                                     |                                  | 𐤺   | 𐤻                | 𐤼                |                   | 𐤽 (graffito)          | 𐤾  | 𐤿             |              | 𐥀       |   |  |
| h            |                              |                               |                                |                               |                              |                                  |                  |                                       |                                   |                                     |                           |                                     |                                  |   |                  |                  |                   | 𐥁𐥂𐥃                   |  | 𐥄             |              |         |   |  |
| w            |                              |                               |                                |                               |                              |                                  |                  |                                       |                                   |                                     |                           |                                     |                                  |   |                  |                  | 𐥅                 | 𐥆𐥇𐥈𐥉                  |  | 𐥊             |              | 𐥋       |   |  |
| z(d)         |                              |                               |                                |                               |                              |                                  |                  |                                       | 𐥌                                 | 𐥍                                   |                           | 𐥎                                   | 𐥏                                |   |                  |                  | 𐥑                 | 𐥒                     | 𐥓  | 𐥔             |              | 𐥕       |   |  |
| h(h)         | 𐥕                            | 𐥖                             | 𐥗                              | 𐥘                             |                              | 𐥙𐥚                               | 𐥛                | 𐥜                                     | 𐥝                                 | 𐥞                                   | 𐥟                         | 𐥠                                   | 𐥡                                | 𐥢   | 𐥣                | 𐥤                | 𐥥𐥦                | 𐥧𐥨𐥩                   | 𐥪  | 𐥫𐥬            |              |         |   |  |
| !            |                              |                               |                                |                               |                              |                                  |                  |                                       |                                   |                                     |                           |                                     |                                  |   |                  |                  |                   | 𐥭                     |  |               |              |         |   |  |
| y            |                              |                               |                                |                               |                              | 𐥮                                |                  | 𐥯                                     | 𐥰                                 | 𐥱                                   | 𐥲                         |                                     |                                  |   |                  |                  | 𐥳                 | 𐥴                     |  | 𐥵             |              | 𐥶       |   |  |
| k            |                              |                               |                                |                               |                              |                                  |                  |                                       |                                   |                                     | 𐥷                         | 𐥸                                   | 𐥹𐥺                               |   |                  |                  | 𐥻                 | 𐥼𐥽𐥾𐥿 (graf-<br>fito)  |  | 𐥿             | 𐦀            | 𐦁       |   |  |
| l            | 𐦂                            | 𐦃                             | 𐦄                              | 𐦅                             | 𐦆                            |                                  | 𐦇                | 𐦈                                     |                                   | 𐦉                                   |                           |                                     | 𐦊𐦋                               | 𐦌   | 𐦍                | 𐦎                | 𐦏𐦐                | 𐦑𐦒                    | 𐦓  | 𐦔             | 𐦕            | 𐦖       |   |  |
| m            |                              |                               |                                |                               |                              |                                  | 𐦗                |                                       | 𐦘                                 |                                     |                           |                                     | 𐦙𐦚                               |   |                  |                  | 𐦛                 | 𐦜𐦝                    | 𐦞  |               | 𐦟            | 𐦠       | 𐦡 |  |
| n            |                              |                               |                                |                               | 𐦛                            | 𐦞                                | 𐦟                | 𐦠                                     | 𐦡                                 | 𐦢                                   | 𐦣                         | 𐦤𐦥                                  |                                  | 𐦦   |                  |                  | 𐦧𐦨𐦩               | 𐦪𐦫𐦬                   | 𐦭  | 𐦮             |              | 𐦯       |   |  |
| s            |                              |                               |                                |                               |                              |                                  |                  |                                       |                                   |                                     |                           |                                     |                                  |   |                  |                  | 𐦰                 | 𐦱                     |  |               |              |         |   |  |
| <sup>c</sup> | 𐦲                            | 𐦳                             | 𐦴                              | 𐦵                             | 𐦶                            | 𐦷 <sup>?</sup><br>𐦸 <sup>?</sup> | 𐦹                | 𐦺                                     |                                   | 𐦻𐦼                                  | 𐦽                         | 𐦾                                   | 𐦿                                | 𐧀   |                  |                  | 𐧁                 | 𐧂                     | 𐧃𐧄   | 𐧅𐧆            | 𐧇            | 𐧈       | 𐧉 |  |
| p            |                              |                               |                                |                               |                              | 𐧊 <sup>?</sup><br>𐧋 <sup>?</sup> |                  |                                       |                                   |                                     |                           |                                     |                                  |   |                  |                  |                   | 𐧌𐧍                    |  | 𐧎𐧏            |              | 𐧐       | 𐧑 |  |
| s(d,z)       | 𐧒                            | 𐧓                             | 𐧔                              | 𐧕                             |                              | 𐧖                                |                  | 𐧗𐧘                                    | 𐧙                                 | 𐧚                                   | 𐧛                         | 𐧜                                   | 𐧝                                | 𐧞   |                  |                  |                   |                       | 𐧟  | 𐧠             | 𐧡            | 𐧢       |   |  |
| q            |                              |                               |                                |                               |                              |                                  |                  |                                       |                                   |                                     |                           |                                     |                                  |   |                  |                  |                   |                       |  |               | 𐧣            |         |   |  |
| r            |                              |                               |                                |                               |                              | 𐧦                                |                  | 𐧧                                     |                                   |                                     |                           |                                     | 𐧨𐧩                               |   |                  |                  | 𐧪                 | 𐧫𐧬𐧭𐧮                  | 𐧯  | 𐧰             | 𐧱            | 𐧲       |   |  |
| š(t)         |                              |                               |                                |                               |                              | 𐧴                                |                  |                                       |                                   | 𐧶                                   |                           |                                     |                                  |   | 𐧸                |                  | 𐧹                 | 𐧺                     |  | 𐧻             |              | 𐧼       |   |  |
| t            | +                            | +                             | +                              | +                             | ++                           |                                  |                  |                                       | x                                 |                                     |                           |                                     |                                  |   |                  |                  | ++                | +                     |  | x             |              | x       |   |  |

[illegible]

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## INDEX OF MUSEUMS AND COLLECTIONS<sup>37</sup>

### Amman Museum

J.13544                      Tell el-Kheleife jar  
                                 Queen Alia Airport seal

### Arabian Peninsula, *in situ* inscriptions

Jamme 536 (Marib)  
Jamme 863 (Jebel Awwad)  
Jamme 1049 (el-Ḥasa)

### Baghdad, Iraq Museum

978                              Ur label  
59821                          Uruk tablet  
62778                          Tell Abu Salabiḥ sherd  
                                 Nippur tablet  
                                 Ur bowl fragment?  
                                 Ur brick?

### Baltimore, Walters Art Gallery

42.827                      Cylinder seal

### Basle, ex-Erlenmeyer collection (see Unknown)

### Berlin, Staatliche Museen, Vorderasiatisches Museum

VA 2620, VAN 11856      Stamp seal  
VA 2622, VAN 11855      Stamp seal

### Brussels, Musées Royaux

1464                          Cylinder seal

### Ḥasa (see Arabian Peninsula and Moesgard Museum)

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37. And of *in situ* inscriptions.



Jebel Awrad (see Arabian Peninsula)

Jerusalem, Israel Antiquities Authority (formerly  
Department of Antiquities)

86-422 City of David sherd 3

86-424 City of David sherd 2

86-425 City of David sherd 1

Jerusalem, Musée de l'Ecole Biblique

Impression of stamp seal

London, British Museum

89155 Anah seal

Marib (see Arabian Peninsula)

Moesgard Museum, Denmark

Impression of stamp seal

Munich, Staatliche Münzsammlung

A. 1351 Agate scaraboid

New Haven, Yale Babylonian Collection

NCBS 886 Plaque seal

New York, Metropolitan Museum of Art

1986.311.58 Cherkasky seal

L55.49.80 Seal from the ex-Moore coll.

New York, Pierpont Morgan Library

Ward seal 1208

Ward seal 1209

Ward seal 1210

Ward seal 1212

Paris, Bibliothèque Nationale

M 2803, inv. 1406/8                      Stamp seal

Paris, Musée du Louvre

AO 2227                                      Stamp seal

Vienna, Kunsthistorisches Museum

Sem. 80                                      Stamp seal

Sem. 1145                                   Stamp seal

Sem. 1247                                   Stamp seal

Unknown

Pithos from Ḥajar Bin Ḥumeid (Philadelphia?)

Kamid el-Loz sherds (Lebanon?)

Erlenmeyer cylinder seal (Ex-Erlenmeyer collection, Basle)

Erlenmeyer stamp seal (Ex-Erlenmeyer collection, Basle)

Ward seal 1211 (USA?)

Ghrareh impression (with the expedition?)

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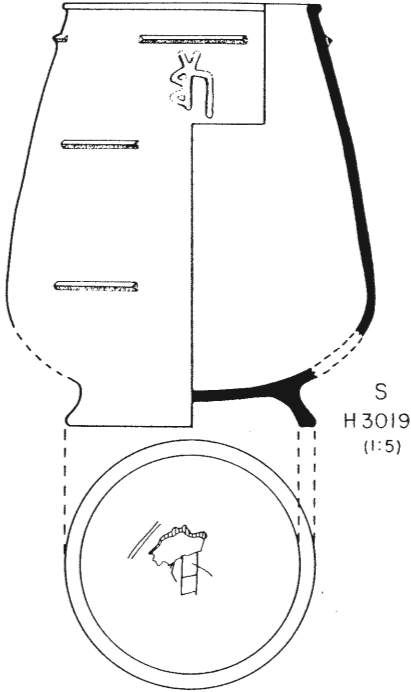
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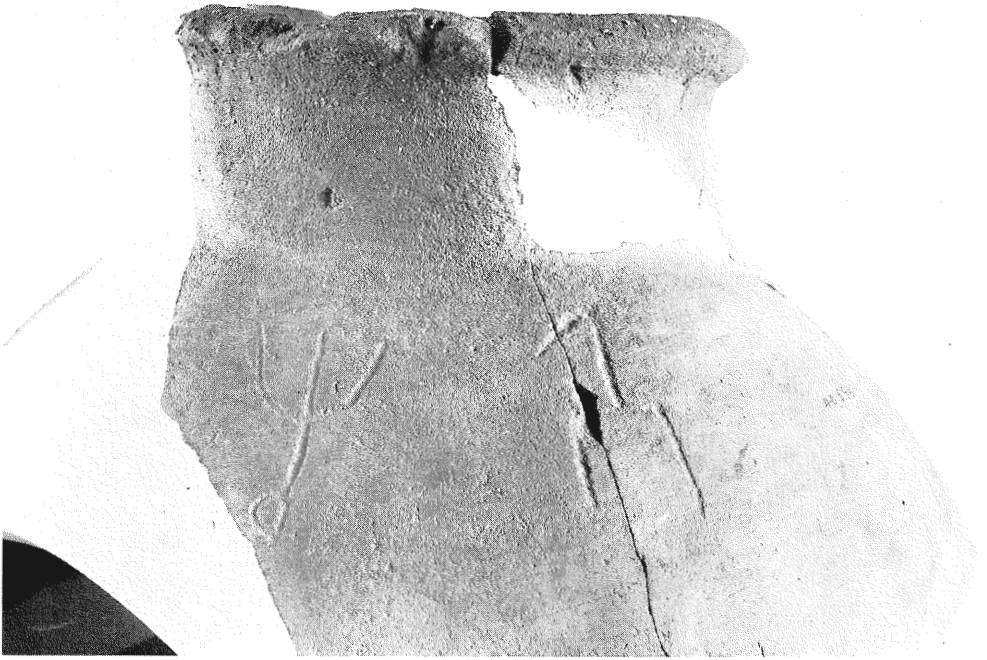
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2. Pithos from Hajar Bin Humeid  
(Van Beek 1956, fig. 1)



3. Tell el-Kheleife jar (courtesy Israel Antiquities Authority)



4. Tell el-Kheleife jar (courtesy Israel Antiquities Authority)



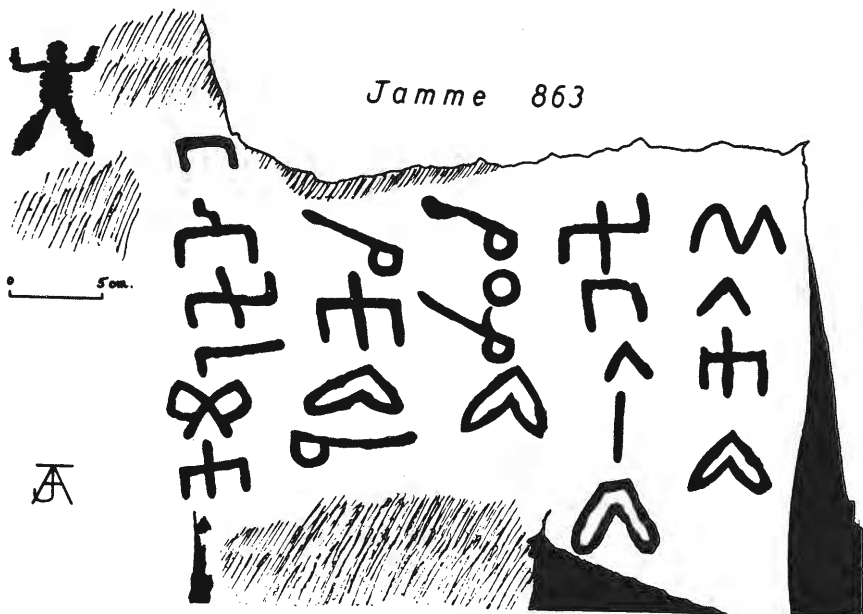
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5. Stele from Marib,  
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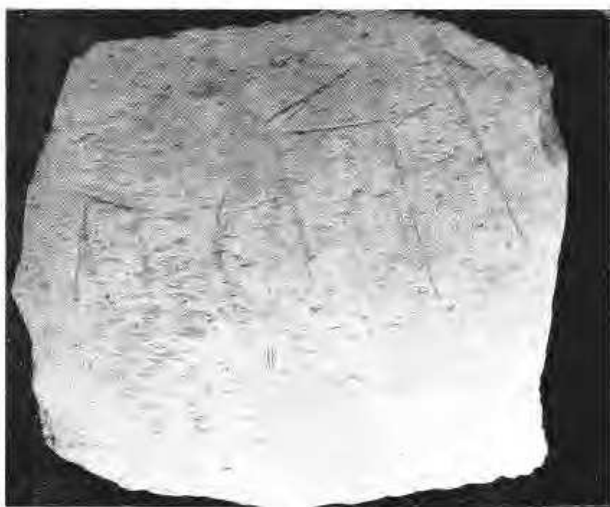
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1049

7. Rock graffito from el-Ḥasa,  
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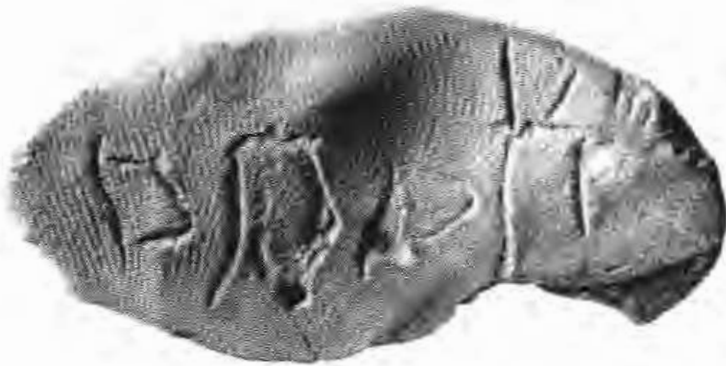
6. Rock graffito from Jebel Awwad, Jamme 863 (Jamme 1955, 33)



8. Tell Abu Salabiḥ sherd (Roux 1960, pl. VI)



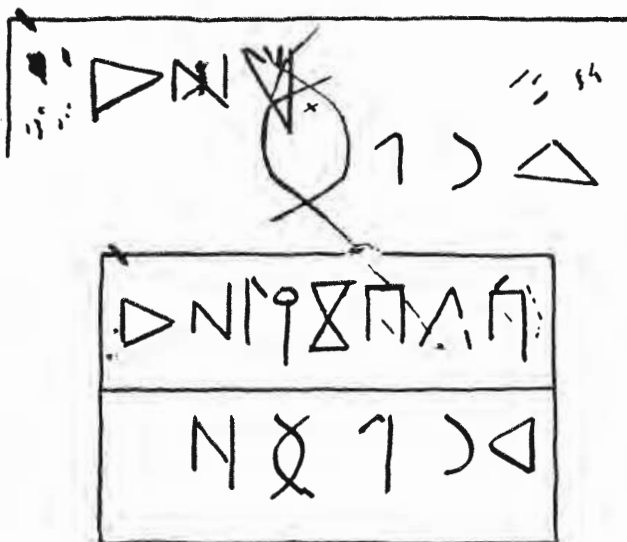
9. Ur Label (*Ur Texts* I, pl. XLVIII:193)



10. Ur Label (Kienast 1958, pl. 46:D)



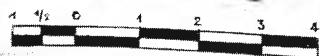
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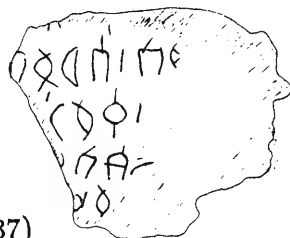
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13. Ur brick (*Ur IX*, pl. 36)



14. Uruk tablet (Kienast 1958, pl. 46:A, B)



15. Nippur tablet (Biggs 1965, 37)

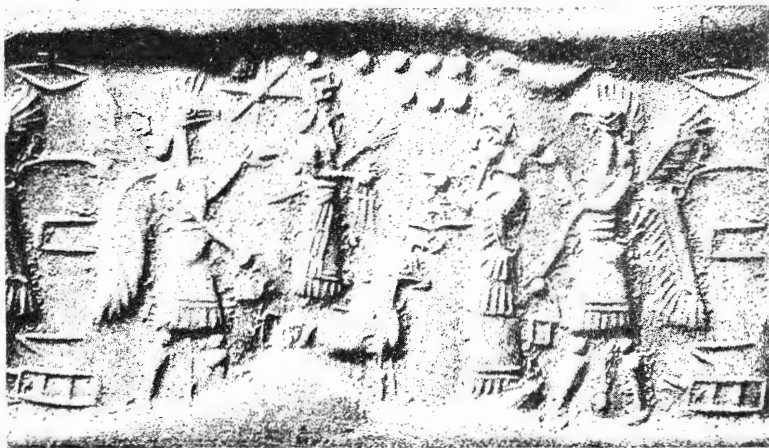




16. Cherkasky seal (courtesy Metropolitan Museum of Art)



17. Ward seal 1209 (Ward 1910, 353)



18. Ward seal 1209 (Porada 1948, pl. CIV:702)



19. Anah cylinder seal (Ward 1910, 351)



20. Anah cylinder seal (Albright 1952, fig. 3)



21, 22. Erlenmeyer Cylinder seal, impression and detail  
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23. Seal from the ex-Moore collection (courtesy of the Metropolitan Museum of Art)

24. Ward seal 1208 (Ward 1910, 352)





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26. Seal in the Walters Art Gallery (courtesy Walters Art Gallery, Baltimore)



27, 28. Erlenmeyer Stamp seal, impression and detail (Erlenmeyer and Erlenmeyer 1965, pls. XI:63 and 67a)



29. Seal in the Bibliothèque Nationale, Paris (courtesy Bibliothèque Nationale)



30. Brussels seal (Courtesy Musées Royaux, Brussels)



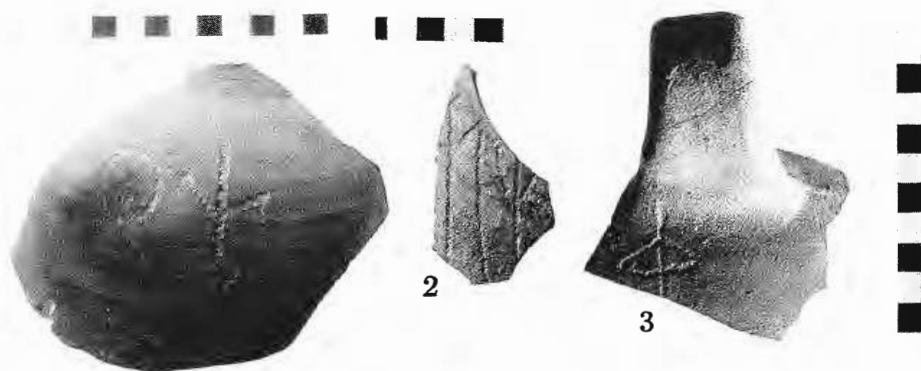
31. Ward seal 1211 (Ward 1910, 353)



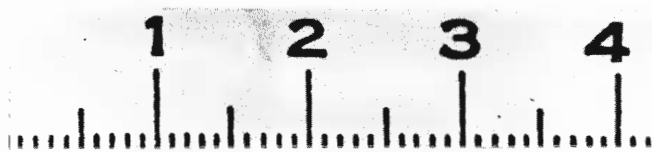
32. Ward seal 1211 (Ward 1909, pl. XXXV:269)

33. Vienna seal 1247  
 (courtesy Kunsthistorisches Museum, Vienna; photo of seal: Vienna Museum; photos of impression: Tsila Sagiv, Jerusalem)





34. Sherds from the City of David excavations (courtesy Israel Antiquities Authority)



35. Seal in Munich (Courtesy Staatliche Münzsammlung, Munich; photos: Tsila Sagiv, Jerusalem)



36. Seal in the Musée du Louvre (courtesy Musée du Louvre)



37. Seal at Yale University (courtesy Yale Babylonian Collection)



38. Vienna seal 1145  
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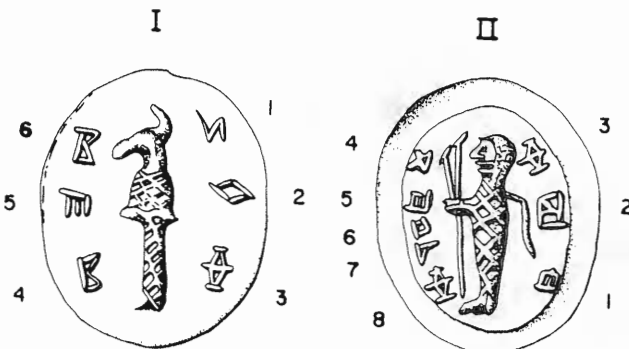
39. Berlin seal 2620  
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40. Berlin seal 2622  
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41. Impression in the Ecole  
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42. Alia Airport seal (Ibrahim, Gordon  
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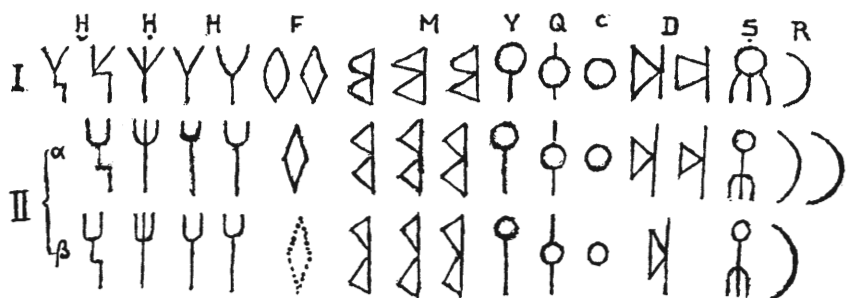


43. Alia Airport seal (Ibrahim,  
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44. Ghrareh impression (Hart  
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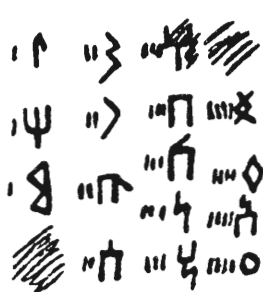




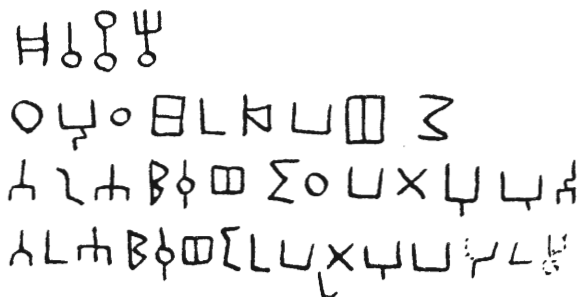
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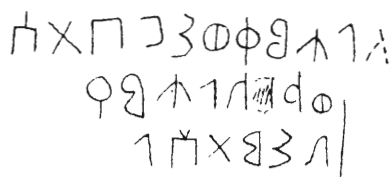
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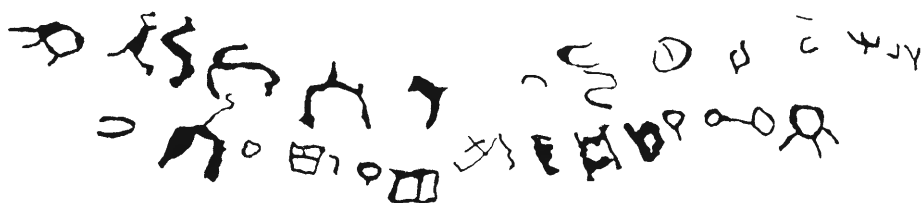
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52. Abecedary from Dakhanamo (Drews and Schneider 1980, 32)

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## *Summary*

This book touches on aspects, chiefly chronological ones, that are relevant to the emergence of the Northwest Semitic, South Semitic and Greek alphabets. In chapter two a conceptual and chronological link is suggested between the Middle Kingdom system of transliterating Semitic names and the birth of the Northwest Semitic alphabet. Chapter three traces the early development of the South Semitic scripts in finds from Arabia, Mesopotamia and the Levant, in search of the period most suitable for the emergence of the alphabet in the kingdom of Sheba. The birth-date of the Greek alphabet, a subject on which scholarly agreement is still lacking, is discussed in chapter four. The author combines the relevant Semitic and Greek epigraphical evidence in order to elicit the time of the adoption of the Greek alphabet from the Phoenician one.